# THE ECONOMIC AND BUDGET OUTLOOK: AN UPDATE

A Report to the
Senate and House
Committees on the Budget

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## NOTES

Unless otherwise indicated, all years referred to in Chapter I are calendar years and all years in Chapter II are fiscal years.

Unemployment rates throughout the report are calculated on the basis of the civilian labor force.

Details in the text and tables of this report may not add to totals because of rounding.

In figures showing periods of recession, shaded areas indicate the months between cyclical peaks and recession troughs.

# PREFACE

This volume is one of a series of reports on the state of the economy and the budget issued periodically by the Congressional Budget Office (CBO). In accordance with CBO's mandate to provide objective and impartial analysis, the report contains no recommendations.

The analysis of the economic outlook presented in Chapter I was prepared by the Fiscal Analysis Division under the direction of Frederick C. Ribe, Robert A. Dennis, and John F. Peterson. Robert Arnold wrote the chapter with contributions from Frank S. Russek, Jr.; he and John F. Peterson carried out the forecast that is described therein. Trevor Alleyne, Philip Bartholomew, Victoria Farrell, Douglas Hamilton, George Iden, Kim Kowalewski, Joyce Manchester, Angelo Mascaro, Frank S. Russek, Jr., Matthew Salomon, John Sturrock, Stephan S. Thurman, and Christopher Williams provided background analysis. Research assistance was provided by Dan Covitz, Emily Kolinski, Mark McMullen, Michael Simpson, Thomas Steinbach, and Patricia Wahl.

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## SUMMARY

The Congressional Budget Office (CBO) projects that the federal deficit will grow to record levels in 1991 and 1992 before beginning to subside. The total deficit will rise from last year's $220 billion to an estimated $279 billion in 1991 and $362 billion in 1992, then drop back sharply in 1993. Three factors contribute to the up-and-down pattern of the deficit: spending to resolve failed banks and thrift institutions, allied contributions to defray the costs of Operation Desert Storm, and the 1990-1991 recession and the ensuing recovery. Excluding these temporary factors, the underlying deficit is projected to stabilize in the range of $170 billion to $190 billion over the next several years. In relation to the size of the economy, such deficits are no better than those of the late 1980s and considerably worse than the average of the 1960s and 1970s.

CBO's budget projections assume that the economy has now moved out of recession and into recovery but that the ensuing expansion will be moderate by historical standards. CBO projects that real gross national product (GNP) will grow 3.4 percent in calendar year 1992 and an average of 2.6 percent a year over the 1993-1996 period. Lower inflation will follow in the recession's wake, but short-term interest rates are projected to rise slightly during the recovery.

## THE BUDGET OUTLOOK

The Omnibus Budget Reconciliation Act of 1990, enacted after lengthy budget summit negotiations, set the federal government's fiscal course for the next several years. The reconciliation act included cuts in entitlement spending, increases in tax revenues, and a new pay-as-you-go procedure designed to make sure that these deficit reduction measures were not eroded in the future. It also established limits, or caps, on discretionary spending for fiscal years 1991 through 1995.

For 1991, 1992, and 1993, each of three categories of discretionary spending--defense, international, and domestic--has a separate cap. For 1994 and 1995, the law limits discretionary spending as a whole. In 1992 and 1993, the discretionary spending limits require substantial real reductions (that is, after allowing for inflation) only in the defense category. In 1994 and 1995, however, the caps will require real reductions of 3 percent to 4 percent a year in total discretionary spending.

Even assuming adherence to both the pay-as-you-go discipline and the discretionary spending caps, the federal deficit is projected to rise sharply in 1991 and 1992. But the deficit should drop off just as precipitously in 1993 and 1994 (see Summary Table 1). Behind these volatile deficit figures, however, lies a fairly smooth fiscal policy course. To see the underlying pattern, three temporary factors must be stripped away.

First, the budget projections assume substantial spending will continue to be required for the next several years to resolve hundreds of insolvent banks and thrift institutions whose deposits are insured by the federal government. Spending for deposit insurance, which had normally been negligible, swelled to $22 billion in 1989 and $58 billion in 1990. CBO projects further increases to $77 billion in 1991 and $115 billion in 1992. By 1995 and 1996, however, the deposit insurance agencies will have cleared away the backlog of insolvent institutions. At that point, the government's proceeds from selling the assets of previously failed institutions will exceed the spending required to resolve new failures, and deposit insurance will reduce the deficit, not add to it.

Second, allied governments will contribute an estimated $48 billion in 1991 to cover the costs of Operation Desert Storm. The budget treats these contributions as offsetting collections, that is, negative spending. Because they are a one-time event, however, the contributions for Operation Desert Storm hold down the deficit in 1991 but in no other year. The large year-to-year swings in deposit insurance spending and allied contributions have little current effect on the

## SUMMARY TABLE 1. CBO DEFICIT PROJECTIONS (By fiscal year)

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|---|
| | | | In Billions of Dollars | | | | |
| Total Deficit | 220 | 279 | 362 | 278 | 234 | 157 | 156 |
| Deficit Excluding Deposit Insurance and Desert Storm Contributions | 162 | 250 | 248 | 220 | 202 | 189 | 200 |
| Standardized-Employment Deficit[a] | 145 | 175 | 188 | 179 | 170 | 164 | 183 |
| Deficit Excluding Social Security and Postal Service | 277 | 331 | 425 | 348 | 318 | 252 | 262 |
| | | | As a Percentage of GNP | | | | |
| Total Deficit | 4.1 | 5.0 | 6.1 | 4.4 | 3.5 | 2.2 | 2.1 |
| Deficit Excluding Deposit Insurance and Desert Storm Contributions | 3.0 | 4.5 | 4.2 | 3.5 | 3.0 | 2.7 | 2.6 |
| Standardized-Employment Deficit[a] | 2.6 | 3.0 | 3.1 | 2.8 | 2.5 | 2.3 | 2.4 |
| Deficit Excluding Social Security and Postal Service | 5.1 | 5.9 | 7.2 | 5.5 | 4.7 | 3.5 | 3.5 |
| **Memorandum:** Gross National Product | 5,406 | 5,591 | 5,939 | 6,315 | 6,699 | 7,106 | 7,538 |

SOURCE: Congressional Budget Office.

a. Excluding deposit insurance and Desert Storm contributions. Shown as a percentage of potential GNP.

economy and on interest rates. If these two items are excluded from the calculation, the deficit peaks at about $250 billion in 1991 and 1992 and then begins a slow decline, as shown in the second line of Summary Table 1.

Third, the budget responds to the ebb and flow of the economy. During recessions, when gross national product falls below its potential, tax revenues are depressed. Also, government spending on unemployment insurance and means-tested benefit programs rises. Much of the increase in the federal deficit between 1990 and 1991 stems from the recession. Similarly, the projected decline in the deficit after 1992, excluding deposit insurance, reflects almost entirely the assumed economic expansion. The standardized-employment deficit removes the effects of the business cycle (as well as deposit insurance and allied contributions) from the budget totals. In dollar terms, this deficit rises from $145 billion in 1990 to $175 billion in 1991 and is projected to remain near that level for the next several years. As a percentage of high-employment GNP, it declines gradually from 3 percent in 1991 and 1992 to 2.3 percent in 1995.

Still another measure of the deficit is the on-budget deficit, which excludes the receipts and outlays of the Postal Service and the two Social Security trust funds. CBO projects that the on-budget deficit will reach $331 billion in 1991 and $425 billion in 1992. From the standpoint of economic policy, however, the on-budget deficit is not meaningful.

## THE ECONOMIC OUTLOOK

CBO believes that the recession that began in the third quarter of 1990 ended in the second quarter of 1991. This most recent recession was not as deep as the average of postwar recessions, and the rebound is also likely to be weaker than average. Tax increases and spending cuts by state and local governments, weakened demand for U.S. exports by the nation's trading partners, and continued emphasis on price stability by the Federal Reserve will help hold growth to a moderate pace.

## Forecast for 1991 and 1992

CBO forecasts that real GNP will rise 1.1 percent between the fourth quarters of 1990 and 1991 and 3.3 percent during 1992 (see Summary Table 2). Private forecasters are, on average, forecasting slightly lower growth than is CBO, particularly in 1992. The Administration's forecast, in contrast, is marked by somewhat stronger growth in 1992.

CBO projects that inflation, as measured by the change in the consumer price index, will fall from 6.3 percent in 1990--a rate reflecting the increase in oil prices following Iraq's invasion of Kuwait--to 3.9 percent in 1992 on a fourth-quarter-to-fourth-quarter basis. By CBO's reckoning, the recession should reduce the underlying rate of inflation by about one percentage point. Both the *Blue Chip* consensus of private forecasters and the Administration expect a similar decline in inflation.

Short-term interest rates, which declined during the recession, are expected to rise as the economy recovers and the demand for credit increases. The three-month Treasury bill rate, currently about 5.6 percent, is expected to average 6.2 percent in 1992. The yield on ten-year Treasury notes, now about 8.2 percent, is forecast to be about the same in 1992. CBO's forecast of interest rates for 1991 and 1992 is virtually identical with the *Blue Chip* consensus, whereas the Administration foresees lower rates.

## Projections for 1993-1996

CBO does not attempt to forecast cyclical fluctuations in the economy more than two years into the future. Beyond 1992, CBO makes projections based on trends in the labor force, productivity, and saving rates. While these trends change only slowly, CBO continually updates its view of the long-run outlook to reflect recent economic developments.

Growth in real GNP over the 1993-1996 period is projected to average 2.6 percent, slightly less than CBO's estimate of last winter (see Summary Table 3). This reduction reflects two factors. First, higher

## SUMMARY TABLE 2. COMPARISON OF CBO, ADMINISTRATION, AND *BLUE CHIP* FORECASTS FOR 1991 AND 1992

| | Actual | Forecast | |
|---|---|---|---|
| | 1990 | 1991 | 1992 |
| **Fourth Quarter to Fourth Quarter (Percentage change)** | | | |
| Nominal GNP | | | |
| CBO | 4.5 | 4.6 | 6.7 |
| Administration | 4.5 | 5.0 | 7.5 |
| *Blue Chip* | 4.5 | 4.9 | 6.5 |
| Real GNP | | | |
| CBO | 0.5 | 1.1 | 3.3 |
| Administration | 0.5 | 0.8 | 3.6 |
| *Blue Chip* | 0.5 | 0.9 | 2.8 |
| Implicit GNP Deflator | | | |
| CBO | 4.0 | 3.5 | 3.3 |
| Administration | 4.0 | 4.2 | 3.8 |
| *Blue Chip* | 4.0 | 3.9 | 3.6 |
| Consumer Price Index[a] | | | |
| CBO | 6.3 | 3.2 | 3.9 |
| Administration | 6.2 | 3.4 | 3.9 |
| *Blue Chip* | 6.3 | 3.5 | 4.0 |
| **Calendar-Year Averages (Percent)** | | | |
| Civilian Unemployment Rate[b] | | | |
| CBO | 5.5 | 6.7 | 6.2 |
| Administration | 5.4 | 6.6 | 6.4 |
| *Blue Chip* | 5.5 | 6.7 | 6.5 |
| Three-Month Treasury Bill Rate | | | |
| CBO | 7.5 | 5.8 | 6.2 |
| Administration | 7.5 | 5.7 | 5.9 |
| *Blue Chip* | 7.5 | 5.8 | 6.1 |
| Ten-Year Government Note Rate | | | |
| CBO | 8.6 | 8.2 | 8.3 |
| Administration | 8.5 | 8.0 | 7.8 |
| *Blue Chip*[c] | 8.6 | 8.2 | 8.3 |

SOURCES: Congressional Budget Office; Office of Management and Budget; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators*.

NOTE: The *Blue Chip* forecasts through 1992 are based on a survey of 50 private forecasters, published on July 10, 1991.

a. Consumer price index for all urban consumers (CPI-U) for CBO and the *Blue Chip*; consumer price index for urban wage earners and clerical workers (CPI-W) for the Administration.

b. The Administration's projection is for the total labor force, including armed forces residing in the United States; the CBO and *Blue Chip* projections are for the civilian labor force excluding armed forces. In recent years, the unemployment rate for the former has tended to be 0.1 to 0.2 percentage points below the rate for the civilian labor force alone.

c. *Blue Chip* does not project a 10-year note rate. The values shown here are based on the *Blue Chip* projection of the Aaa bond rate, adjusted by CBO to reflect the estimated spread between Aaa bonds and 10-year government notes.

## SUMMARY TABLE 3. MEDIUM-TERM ECONOMIC PROJECTIONS FOR CALENDAR YEARS 1993 THROUGH 1996

| | Actual | Forecast | | Projected | | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
| Nominal GNP (Billions of dollars) | | | | | | | |
| CBO Summer | 5,465 | 5,655 | 6,037 | 6,409 | 6,798 | 7,211 | 7,650 |
| CBO Winter | 5,467 | 5,700 | 6,107 | 6,505 | 6,919 | 7,358 | 7,824 |
| Real GNP (Billions of 1982 dollars) | | | | | | | |
| CBO Summer | 4,157 | 4,152 | 4,294 | 4,410 | 4,526 | 4,645 | 4,768 |
| CBO Winter | 4,154 | 4,153 | 4,290 | 4,413 | 4,535 | 4,660 | 4,787 |
| Real GNP (Percentage change) | | | | | | | |
| CBO Summer | 1.0 | -0.1 | 3.4 | 2.7 | 2.6 | 2.6 | 2.6 |
| CBO Winter | 0.9 | 0.0 | 3.3 | 2.9 | 2.8 | 2.7 | 2.7 |
| Implicit GNP Deflator (Percentage change) | | | | | | | |
| CBO Summer | 4.1 | 3.6 | 3.2 | 3.4 | 3.4 | 3.4 | 3.4 |
| CBO Winter | 4.2 | 4.3 | 3.7 | 3.5 | 3.5 | 3.5 | 3.5 |
| CPI-U (Percentage change) | | | | | | | |
| CBO Summer | 5.4 | 4.3 | 3.8 | 3.9 | 3.9 | 3.9 | 3.9 |
| CBO Winter | 5.4 | 4.9 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 |
| Unemployment Rate (Percent) | | | | | | | |
| CBO Summer | 5.5 | 6.7 | 6.2 | 5.9 | 5.8 | 5.7 | 5.5 |
| CBO Winter | 5.5 | 6.8 | 6.4 | 6.2 | 6.0 | 5.8 | 5.6 |
| Three-Month Treasury Bill Rate (Percent) | | | | | | | |
| CBO Summer | 7.5 | 5.8 | 6.2 | 6.2 | 6.0 | 5.9 | 5.8 |
| CBO Winter | 7.5 | 6.6 | 7.0 | 6.7 | 6.3 | 5.9 | 5.7 |
| Ten-Year Treasury Note Rate (Percent) | | | | | | | |
| CBO Summer | 8.6 | 8.2 | 8.3 | 8.0 | 7.7 | 7.4 | 7.3 |
| CBO Winter | 8.6 | 7.9 | 7.7 | 7.6 | 7.4 | 7.3 | 7.2 |

SOURCE: Congressional Budget Office.

NOTE: CPI-U is the consumer price index for all urban consumers.

growth in 1992 leaves less room for further increases in capacity utilization in later years. Second, higher government deficits and lower personal saving have reduced the projected saving rate, the expected rate of capital formation, and therefore the potential rate of growth of the economy. By 1996, real GNP is projected to be below CBO's previous estimate by 0.4 percent.

CBO projects roughly constant rates of inflation after 1992. The consumer price index (CPI) is assumed to grow 3.9 percent a year in 1993 and beyond. This rate is higher than CBO projected last winter, reflecting in part a reassessment of trends in the prices of services. But the projected rate of growth of the GNP implicit price deflator is 3.4 percent a year--lower than previously assumed. In this projection, the growth of the CPI is boosted relative to that of the GNP deflator because it places a heavier weight on services, whose cost is rising relatively rapidly. Also, the CPI excludes computers, whose price has been dropping sharply. The increasing importance of computers in the economy thus holds down the growth of the GNP deflator, but not that of the CPI.

As it did in the winter, CBO projects that real interest rates will fall after 1992. The level of long-term interest rates is slightly higher than in the previous forecast, however, reflecting the assumed higher rate of consumer price inflation.

## CHANGES IN THE BUDGET PROJECTIONS

CBO's current projection of the 1991 deficit is $279 billion--$30 billion less than last winter's estimate. The projections for later years, however, are higher by amounts ranging from about $60 billion to $90 billion (see Summary Table 4). The reduction in the deficit in 1991 and the increase in 1992 stems in part from changes in the pattern of spending for Operation Desert Storm and deposit insurance. In both instances, outlays are now projected to be lower in 1991 but higher in 1992. In addition, changes in the outlook for tax receipts, interest costs, and Medicaid spending add substantially to the projected deficits in all years.

## Fiscal Years 1991 and 1992

In March, at the President's request, the Congress enacted a $43 billion emergency appropriation to cover the costs of Operation Desert Storm. This appropriation was substantially larger than the $29 billion placeholder estimate that CBO used last winter, when the duration and intensity of the conflict were uncertain. Because spending to replace or refurbish the munitions and equipment used in the Persian

SUMMARY TABLE 4. CHANGES IN CBO DEFICIT PROJECTIONS
(By fiscal year, in billions of dollars)

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|
| Winter Baseline Deficit | 309 | 294 | 221 | 169 | 69 | 66 |
| Changes | | | | | | |
| Policy changes | 3 | 16 | 4 | 3 | 3 | 2 |
| Economic assumptions | | | | | | |
| Revenues[a] | 15 | 16 | 16 | 21 | 27 | 34 |
| Net interest | -2 | -2 | 2 | 6 | 10 | 13 |
| Other outlays | b | -3 | -2 | -1 | 2 | 4 |
| Subtotal | 13 | 11 | 16 | 26 | 39 | 51 |
| Technical reestimates | | | | | | |
| Revenues[a] | 20 | 12 | 11 | 11 | 11 | 12 |
| Desert Storm contributions | -33 | 0 | 0 | 0 | 0 | 0 |
| Deposit insurance | -26 | 18 | 11 | 7 | 15 | -1 |
| Medicaid | 1 | 3 | 4 | 6 | 7 | 10 |
| Net interest | -1 | -1 | 3 | 7 | 9 | 10 |
| Other outlays | -5 | 10 | 8 | 6 | 5 | 5 |
| Subtotal | -46 | 41 | 37 | 36 | 47 | 36 |
| Total Changes | -30 | 68 | 57 | 65 | 88 | 90 |
| Summer Baseline Deficit | 279 | 362 | 278 | 234 | 157 | 156 |

SOURCE: Congressional Budget Office.

NOTE: The projections include Social Security and the Postal Service, which are off-budget.

a. Revenue losses are shown with a positive sign because they increase the deficit.

b. Less than $500 million.

Gulf War is proceeding at a slower pace than earlier estimated, $9 billion of this additional money will be disbursed in 1992. The decision by the Budget Committees to use the Office of Management and Budget's estimates of outlays, rather than CBO's higher estimates, to measure the cost of appropriation bills allows additional spending to occur and adds another $6 billion to the CBO estimate of the 1992 deficit.

While the Congress was appropriating more money for Operation Desert Storm, foreign governments were also making larger contributions than previously anticipated. Cash contributions are now estimated to reach $48 billion, $33 billion more than the old placeholder estimate. These contributions will be received in fiscal year 1991, however, before much of the spending occurs. As a result, Operation Desert Storm reduces the deficit in 1991 but increases it in 1992.

Estimated spending for deposit insurance has also been revised down in 1991 but up in 1992. Largely because legislation providing additional funds for the Resolution Trust Corporation was delayed, spending to resolve insolvent savings and loan institutions in 1991 is running $26 billion below CBO's previous estimate. This spending, however, is merely delayed until later, primarily 1994 and 1995. The increase in estimated deposit insurance spending in 1992 and 1993 mainly reflects higher demands for working capital to resolve insolvent commercial banks.

### Longer-Run Trends

Legislation enacted this year has had little effect on the projected deficits after 1992. But changes in economic and technical assumptions have significantly worsened the long-run budgetary outlook.

CBO's revised economic assumptions increase the deficit by over $10 billion in 1991 and 1992 and by about $50 billion in 1996. Lower long-run growth in real GNP accounts for a small part of this deterioration, but changes in relative prices and in real interest rates are the main culprits. As discussed earlier, CBO has reduced the projected rate of growth of the GNP deflator in both the short and the medium term. In turn, nominal GNP, personal incomes, and taxes are also lower. If the costs of the items on which the government spends money also grew less rapidly, this reduction in revenues would be matched by a reduction in outlays, and the deficit projections would be little affected. In CBO's new forecast, however, consumer prices and long-term interest rates are higher than before, not lower. Therefore, outlays for indexed benefit programs and interest on the debt are slightly higher than previously estimated, exacerbating rather than offsetting the loss in revenues.

Changes in technical estimating assumptions add another $40 billion a year to the projected deficits after 1991. Three sources account for the bulk of these reestimates. First, tax collections in 1991 have been weaker than the economy alone would suggest. Final payments of tax liabilities for 1990 were lower than expected, as are withheld personal taxes so far in 1991. Although this shortfall cannot be explained until detailed data become available next year, it is prudent to assume that some of the revenue loss is permanent. Excluding changes resulting from the economic forecast, CBO has reduced its revenue estimates by $20 billion in 1991 and $11 billion to $12 billion a year in 1992 through 1996.

Second, spending for Medicaid--the federal/state program that provides medical assistance for low-income people--is reaching new highs and outstripping earlier estimates. This rapid growth has been fueled by court cases and regulatory changes that have forced states to hike the rates at which they reimburse hospitals and nursing homes. In addition, more and more states are using creative financing approaches to shift costs to the federal government. Because these factors are likely to have an ongoing effect on Medicaid spending, CBO has raised its estimates by amounts growing to $10 billion in 1996.

Third, the revenue shortfall, the explosion of Medicaid costs, the increase in the amount of working capital required to resolve insolvent depository institutions, and other smaller technical reestimates combine to increase federal borrowing needs after 1992. As a result, projected outlays for net interest have increased by $3 billion in 1993, $7 billion in 1994, and $10 billion in 1996.

## CONCLUSION

Although the Congress and the President have adhered to last year's budget agreement, and although the economy has begun to emerge from the recession much as CBO forecast, the deficit picture is bleaker than it was six months ago. This deterioration in the budget outlook does not reflect an erosion of last year's hard-won savings and would have occurred even if the 1990 reconciliation bill had not been enacted. Without the spending cuts and tax increases enacted last year, the situation would be considerably worse.

Although the change in the budget estimates is larger than normal over a half-year span, it is not unprecedented. In fact, it was just this sort of variability and uncertainty in the projections that led last year to the virtual abandonment of fixed deficit targets, at least through fiscal year 1993. As a result, there is no immediate pressure to enact further tax increases or spending cuts beyond those that are needed to comply with the discretionary spending caps. In early 1993, however, the President must decide whether to make further adjustments to the deficit targets, and the Congress and the Administration must determine how to apportion the limited amount of discretionary spending. Many of the contentious budgetary issues of the past decade will then return to the front burner.

## CHAPTER I

# THE ECONOMIC OUTLOOK

The Congressional Budget Office believes that the ninth post-World War II recession is over. Based on preliminary data, the recession appears to have been of about average length and milder than average in depth. Unfortunately, the recovery and subsequent expansion are also expected to be moderate by historical standards. A variety of factors account for the prospect of moderate growth, including fiscal restraint by state and local governments, relatively slow growth among the nation's trading partners, and a central bank that is expected to concentrate on its long-run goal of price stability.

The beginning of the recovery does not mean that the economy is free from all possible pitfalls. Unemployment, fiscal problems for governments at all levels, and other hardships stemming from the recession will diminish only gradually. Moreover, a perceptible risk lingers that the recovery could stall after only a few months, and that the recession could resume.

The hardship of the recession has brought the traditional benefit of lower inflation. Even more encouraging, inflation should ease further during the recovery and early stages of the expansion. Interest rates also declined during the recession, but are expected to rise slightly during the recovery. In the 1993-1996 period, interest rates should decline gradually as inflationary expectations ease and the national saving rate increases.

## RECENT ECONOMIC DEVELOPMENTS

The National Bureau of Economic Research (NBER), the official arbiter of the dating of recessions, pronounced that the recession began in August of 1990. Although the NBER has not yet declared the recession to be over, CBO believes that the recovery most likely began during the second quarter of 1991, making the duration of this recession about equal to the 11-month average for postwar recessions. Real gross national product declined about 1 percent from its peak value last summer to the trough this spring. This drop is roughly half the average depth of recessions in the postwar period--2.3 percent.

Several factors are responsible for the relative mildness of the downturn: net exports grew more robustly than in past recessions, partially because of continued growth in many foreign countries; careful management by business moderated the buildup in inventories and helped prevent the recession from gathering force; and the Federal Reserve avoided the sudden tightening of monetary policy that preceded many earlier recessions.

A number of aspects of the current economic climate are likely to weaken the recovery and heighten the risk of a new downturn in the not-too-distant future. Consider, for example, the following factors: budget deficits at the state and local levels that will lead to pressures to restrain spending and increase taxes, thereby slowing growth in overall demand; slow foreign growth and a recently resurgent dollar that could well remove net exports as a spark for growth; the relatively high level of real interest rates that threatens to choke off growth in sectors sensitive to interest rates; the apparent reluctance of banks to make loans, which could prevent credit from expanding adequately to support a recovery; and corporate and consumer debt, which increased markedly during the 1980s and could make the rate of recovery more sluggish if these sectors rein in spending to strengthen their balance sheets.

## The Recession

The recession of 1990-1991 began at a time of stable inflation and a monetary policy that had been relatively tight for several years. This climate contrasts with many earlier recessions, which started with the Federal Reserve sharply tightening monetary policy in response to rising inflation. The monetary restraint reflected the Federal Reserve's attempt to engineer a "soft landing"--that is, to slow growth of aggregate demand and thereby lower inflation without causing the level of output to contract. The outbreak of the Gulf crisis last August, however, dashed hopes for a soft landing. That crisis drove up the price of oil, depressed real incomes, and deflated consumer and business confidence; indeed, it may well have been the critical blow that tipped the economy into recession.

The recession resembled in many respects the average post-World War II downturn. As in the average recession, a decline in residential construction and business fixed investment initially precipitated it. The continuing problems of financial institutions no doubt exacerbated the decline in these sectors. However, the slowdown in the pace of economic activity--whether measured by output, unemployment, or industrial production--was less than in the average postwar recession.[1] (The depth of the recession, as measured by real GNP, will appear somewhat more severe when measured using data rebased to 1987 dollars, which the Commerce Department will release in November; see Box I-1.)

Three factors stand out among the reasons that the recession was relatively mild. First, the continued growth of exports during the recession clearly helped limit its severity: if growth in net exports had been as low as that during previous recessions, this one would have been roughly twice as severe as it was. The strength in net exports stemmed from continuing (albeit slowing) economic growth abroad, a sharp decline in the exchange value of the dollar from the late 1980s through early 1991, and a decline in the volume of imports of petroleum to the United States during the Gulf crisis last fall.

Second, the severity of the recession was tempered because businesses had pared their inventories during 1989 and 1990. Inventories typically rise rapidly during the first quarter of a recession, and then fall sharply in subsequent quarters. According to common wisdom, this historical pattern reflects the failure of the business sector to anticipate the onset of recession. When confronted with rising inventories as sales plummet, businesses must slash production to cut inventories in later quarters.

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[1] These variables are measured by the peak-to-trough movement in each variable, using the third quarter of 1990 as the peak and the second quarter of 1991 as the trough.

## BOX I-1

## ANTICIPATING REVISIONS TO THE NATIONAL INCOME AND PRODUCT ACCOUNTS

The Department of Commerce will issue comprehensive revisions of the national income and product accounts (NIPA) data in November, and these revisions will change historical measures of real growth and inflation, most significantly for the 1980s. The revisions will update the computation of all inflation-adjusted or "real" economic measures by rebasing price deflators that will make the prices of 1987--rather than those of 1982--the basis for calculating constant-dollar series. The revisions will also incorporate new source data, improved measurements, and some changes in classifications and definitions. In addition to the revisions, the Department of Commerce will publish an alternative measure of real gross national product that will provide a more useful indication of growth over long time spans--such as the entire postwar period--and that will not be subject to large revisions as a result of subsequent rebasing.

Although the magnitudes of the revisions cannot be anticipated precisely, the revisions will make the decline in real output during the recent recession deeper, and they are likely to reduce growth in real output and productivity by about 0.3 percentage points per year for the 1980s. The NIPA measure of inflation, the growth in the fixed-weighted price index, is likely to be revised up by a similar amount.

The rebasing to 1987 dollars is the single most important aspect of the revisions. The need for periodic rebasing of the GNP accounts arises because of the way in which real GNP is defined. In order to exclude inflation from the measure of growth in real GNP, the calculation of real GNP uses a fixed set of prices, those of the base period--currently 1982. That is, purchases in 1991 of cars, health insurance, computers, construction of offices, national defense, and all the other components of GNP are individually revalued in prices of 1982 and added together. Although this procedure yields a consistent measure of real GNP, the measure becomes increasingly unrealistic as prices increasingly diverge from those of 1982. In particular, computer prices and oil prices are now very much lower than they were in 1982. Thus, valuing computer purchases and oil purchases in real GNP at 1982 prices significantly overstates their true importance in the economy. For this reason, it is important to measure recent developments in real GNP using prices from a recent base year.

The rebasing of price deflators will have several predictable effects on the historical data. First, the rebasing to 1987 will tend to reduce reported rates of growth in real GNP from the rates now reported on a 1982 basis. As a result of rebasing, the decline in real GNP during the recent recession will be somewhat sharper than it earlier appeared. Preliminary estimates published by the Department of Commerce indicate that real GNP, measured in 1987 dollars, declined 3.1 percent in the fourth quarter of 1990, as compared with only a 1.6 percent decline in real GNP measured in 1982 dollars. Moreover, CBO estimates that the peak-to-trough decline in real GNP measured in 1987 dollars during the recession was about 1.3 percent, as compared with the 1.0 percent decline for real GNP in 1982 dollars.

A second foreseeable result of the rebasing is that, as a by-product, the reported growth in the implicit deflator for GNP will be increased. This increase will not affect CBO's assessment of inflation, however, since CBO does not consider changes in the GNP deflator to measure inflation properly. Nevertheless, because the GNP deflator is used to index caps on discretionary spending under the Budget Enforcement Act of 1990, the rebasing adjustments to the deflator have implications for the outlook for budget policy.

Finally, the revision to real GNP may change the assessment of long-run trends in the growth of productivity. Because measures of labor input are not affected by the rebasing, reported growth in productivity will be slower when real GNP is measured in 1987 dollars than when it is measured in 1982 dollars. The preliminary estimates suggest that this decline in the measured growth of productivity will be 0.3 percent a year, on average, over the eight years from 1983 through 1990. CBO anticipates that the revision to real GNP will lower its projection for annual growth of potential output and labor productivity by an average of 0.2 percent through 1996.

Rebasing the GNP accounts to 1987 prices will improve measures of real GNP in recent years, but by the same token the rebased accounts will give a more misleading picture of real GNP growth in all the years before 1982 and in those years after 1982--roughly, until 1984--when prices were more similar to those of 1982 than to those of 1987. For this reason, the Department of Commerce plans to publish an alternative measure of growth in real GNP--one that reduces the base-year problem--to evaluate growth not only for recent years, but for the entire postwar period. This measure should help evaluations of the long-run growth of the economy, and could affect CBO's assessment of the potential for future growth in ways that cannot now be predicted.

In contrast, the last quarter of 1990 experienced a large drawdown of inventories--the largest ever for the first quarter of a recession--that was followed by progressively smaller drawdowns in the second and third quarters of the recession. The pattern of investment in inventories made a positive contribution to growth during the second and third quarters of the recession because it is the change in this investment that contributes to economic growth. A drawdown in inventories in a given quarter will add to GNP growth as long as it is smaller than the drawdown in the previous quarter.

The last of the factors that made the recession milder than average was that this recession, unlike the previous ones, was not precipitated by a sharp tightening of monetary policy. Several previous recessions, most notably that of 1982, began with a sharp tightening of monetary policy designed to slow the rate of inflation. In contrast, in the months leading up to the recession of 1990-1991, the growth of aggregate demand was slow and inflation was stable, reflecting the policy of monetary restraint followed over the previous three years. Under such conditions, the Federal Reserve had more flexibility to respond to the recession and the oil price shock.

The most common--and painful--feature of every recession is the loss of jobs. The recent recession is no exception: about one and one-half million workers lost their jobs between mid-1990 and mid-1991. Although other measures (such as the decline in output) suggest that the recession was slightly milder than average, the decline in employment, when measured in percentage terms, matches the average loss experienced in earlier recessions. The loss in jobs was not apparent from the unemployment rate, which rose somewhat less than it had in previous recessions. However, a dramatic slowing in the growth of the labor force during 1990 muted the rise in the unemployment rate. The growth of the labor force typically slows during recessions, but the slowdown during 1990 was particularly sharp. Analysts attribute part of the slowdown to a voluntary decision by some women to withdraw from the labor force to raise families, and part to an unusually large number of young workers leaving the labor force to attend school.

## Preliminary Indications of Recovery

Lower interest rates, a result of easier monetary policy and lower demand for credit, played a large role in bringing the recession to an end. The lower rates increased the demand for purchases sensitive to interest rates, particularly housing. Home sales made a recovery during the first quarter of 1991, leading to an increase in housing starts in the second quarter. The recovery in housing is likely to be followed by an upturn in spending for residential construction during the second half of 1991.

Stronger consumer spending in recent months provides further evidence of recovery. Although lower interest rates influenced some components of consumption--especially spending for durable goods, such as appliances and autos--changes in disposable income are the primary influence on overall expenditures for personal consumption (see Figure I-1). During the second quarter of 1991, real disposable income registered its first quarterly gain since mid-1990. This improvement, combined with a dip in the personal saving rate, resulted in a 3½ percent increase (at an annual rate) in real consumption spending.

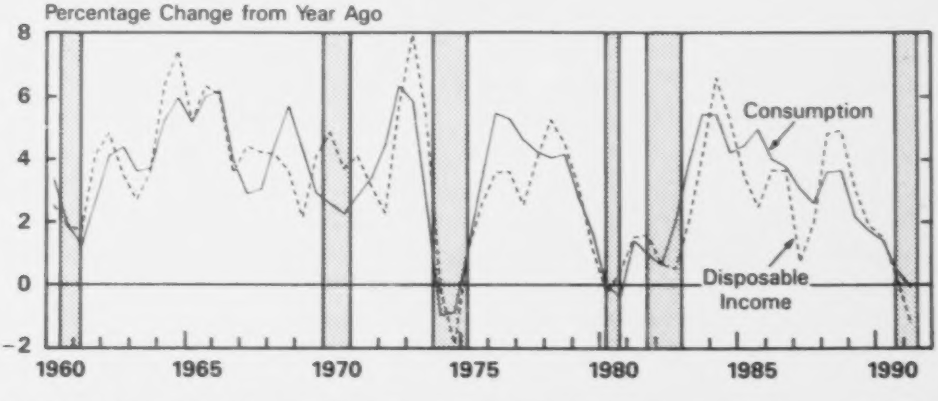
In addition to housing starts and spending on consumption, several other measures provide evidence of the recession's end, including data on hours and employment, the index of leading indicators, several stock market indices, and the index of industrial production. Based on all of the available evidence, CBO expects real final sales (which includes all components of GNP except investment in inventories) to grow at a modest rate during the initial quarters of the recovery--on the order of 2.5 percent. A major contributor to growth will be the swing in investment in inventories, which is implied by the comeback in final sales. Since firms have generally maintained lean inventories during this recession, even a mild turnaround in sales augurs that firms will substantially increase their stock of goods just to keep inventories in line with sales.

## The Influence of Federal Fiscal Policy and State and Local Budget Policies

The deficit reductions, as set forth in the Omnibus Budget Reconciliation Act (OBRA) of 1990, will lower projected deficits, relative to pre-OBRA policies, for the next several years. Fiscal policy was mildly stimulative during the recession--the measures enacted to reduce the deficit were largely offset by spending for the Persian Gulf War--and it will have only a slight impact on the recovery. Over the near term, however, fiscal restraint on the part of state and local governments will tend to slow the pace of recovery.

Federal Fiscal Policy. According to the CBO baseline projections, the total federal budget deficit (including outlays for deposit insurance) will climb from $279 billion in fiscal year 1991 to $362 billion in 1992 (see Chapter II). The total budget deficit is likely to decline thereafter

Figure I-1.
Real Consumption and Disposable Income



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

NOTES: Semiannual data for consumption and disposable income, in 1982 dollars.

The shaded area for 1990-1991 assumes the recession trough occurred in the second quarter of 1991.

to a level of $156 billion in 1996. This projection reflects the fiscal discipline contained in OBRA 1990, which was designed to bring down the federal budget deficit by nearly $500 billion cumulatively during the 1991-1995 period from what it would have been under pre-OBRA policies. Most of the decline in the deficit, however, stems from the recovery from recession together with the projected resolution of the deposit insurance debacle.

**Fiscal Stimulus in the Short Run.** Although the total budget deficit determines the amount of federal borrowing from the public, other measures, such as those reported in the upper panel of Table I-1, are better suited for gauging the discretionary component of fiscal policy and its short-run impact on the pace of the recovery. The focus of these measures is how much the federal budget stimulates or restrains short-term growth in the economy by increasing or reducing overall demand.

These measures exclude deposit insurance as well as allied contributions for the Gulf War. Outlays for deposit insurance do not affect overall demand: they do not directly increase the demand for goods and services, nor do they increase the income or wealth of the private sector. Outlays to restore deposits simply represent substituting one federal liability (federal debt) for another (a federal obligation to protect the value of insured deposits in many banks and thrift institutions) that the federal government accrued when these institutions became insolvent. Similarly, outlays to purchase the assets of failed institutions are purely financial transactions, involving swaps of existing financial assets (see Box I-2 for a description of the economic effect of deposit insurance). Allied contributions for the Gulf War also do not affect aggregate demand: they simply represent a means of financing federal spending without raising taxes or borrowing from the public.

The most commonly used measure of discretionary fiscal policy is the change in the "standardized-employment" deficit (see Table I-1). It removes from the budget the effects of the business cycle on federal revenues and outlays. These effects are especially pronounced during periods of economic recession and recovery. CBO estimates that the standardized-employment deficit will increase by $30 billion, or about

## TABLE I-1. THE FISCAL POLICY OUTLOOK
(By fiscal year, on a budget basis)

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|---|---|
| **Measures of Discretionary Fiscal Policy and Measures Relevant to Short-Run Effects on Aggregate Demand (Billions of dollars)** | | | | | | | | |
| Total Budget Deficit[a] | 131 | 162 | 250 | 248 | 220 | 202 | 189 | 200 |
| Standardized-Employment Deficit | 146 | 145 | 175 | 188 | 179 | 170 | 164 | 183 |
| Cyclical Deficit | -15 | 17 | 75 | 60 | 41 | 32 | 25 | 17 |
| Standardized-Employment Deficit Excluding Interest Payments[a] | -23 | -39 | -20 | -20 | -50 | -76 | -92 | -83 |
| Standardized-Employment Deficit Including Preliminary Estimates of Accrued Federal Liabilities for Thrift Deposit Insurance[a] | 161 | 166 | 199 | 216 | 206 | 191 | 173 | 185 |
| **Measures Relevant to Effects on Medium-Term Economic Growth (Percentage of GNP)** | | | | | | | | |
| Total Budget Deficit[a] | 2.6 | 3.0 | 4.5 | 4.2 | 3.5 | 3.0 | 2.7 | 2.6 |
| Total Inflation-Adjusted Budget Deficit[a] | 0.9 | 1.1 | 2.9 | 2.5 | 1.8 | 1.3 | 1.0 | 1.0 |
| Publicly Held Federal Debt[a] | 42.4 | 43.2 | 46.3 | 47.7 | 48.3 | 48.6 | 48.4 | 48.3 |
| **Memoranda: (Billions of dollars)** | | | | | | | | |
| Deposit Insurance | 22 | 58 | 77 | 115 | 58 | 32 | -32 | -44 |
| Preliminary Estimates of Accrued Federal Liabilities for Thrift Deposit Insurance | 15 | 21 | 24 | 28 | 26 | 21 | 9 | 1 |
| Operation Desert Shield/Storm | n.a. | n.a. | 22 | 17 | 3 | 1 | 1 | n.a. |
| Allied Contributions for Gulf War | n.a. | n.a. | 48 | n.a. | n.a. | n.a. | n.a. | n.a. |

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable during this period.

a. These measures of fiscal policy reflect the policies of the budget resolution for 1992 (including the spending caps in the Omnibus Budget Reconciliation Act of 1990), but exclude current outlays for deposit insurance. Also, the deficit numbers for 1991 exclude $48 billion of allied contributions for the Gulf War.

one-half of 1 percent of potential GNP in fiscal year 1991, mildly stimulating the economy in that year. In later years, however, the measure shows little fiscal stimulus or restraint.

Since part of the stimulus for fiscal year 1991 occurred late in calendar year 1990, it probably helped to make the recession milder and shorter than it would otherwise have been. A significant part of this stimulus reflected military spending for the Gulf War, which was treated as emergency spending and was, therefore, allowable under the discretionary spending caps mandated by the Budget Enforcement Act of 1990.

The same general pattern of fiscal policy emerges if the standardized-employment deficit is expanded to include a preliminary approximation of the economic impact of thrift deposit insurance. CBO has attempted to estimate the accruing federal obligations under the deposit insurance program, recording these obligations closer to the time when their economic impact is felt (see Box I-2). Including these liabilities substantially increases the size of the estimated standardized-employment deficit in recent years, but does not significantly change the estimated amount of fiscal stimulus in 1991, or the approximate neutrality of the measure in the 1992-1996 period.

Analysts sometimes exclude interest costs from the standardized-employment deficit, because policymakers have only limited control over such payments. (Because interest payments are so large, the "deficit" on this basis is a negative number, denoting a surplus.) This measure suggests a mildly stimulative discretionary fiscal policy in 1991, followed by neutrality in 1992, and mild restraint thereafter.

**Longer-Run Impacts of the Budget.** In the longer term, analysts focus more on the budget's impact on national saving than on its contribution to aggregate demand. The budget contributes to national saving and long-term growth if the deficit shrinks, leaving more funds for investment in the private sector. CBO's medium-term projections suggest that the total budget deficit (excluding deposit insurance) will

## BOX I-2
## MEASURING THE IMPACT OF DEPOSIT INSURANCE ON AGGREGATE DEMAND

CBO's measures of fiscal policy generally have excluded outlays for deposit insurance because these outlays do not properly reflect the timing of the economic impact of that program. Economists generally agree that spending for resolving insolvent thrifts differs from most other federal spending because it is unlikely to exert a significant effect on overall demand for goods and services.

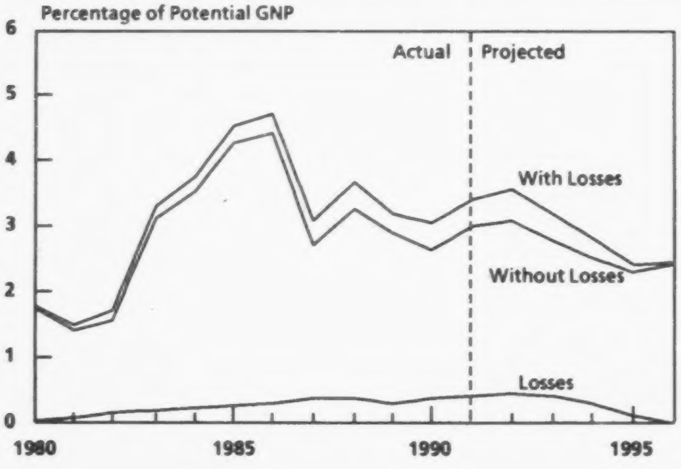
Federal spending for deposit insurance includes outlays to restore insured deposits that exceed the value of the assets in failed thrifts, as well as outlays to purchase the assets of failed thrifts. Neither type of outlay reflects a government purchase of current output. Also, neither encourages increased private purchases of goods or services, and neither makes thrift depositors or shareholders wealthier. Outlays to restore deposits that exceed the value of assets in failed thrifts simply replace one claim on the federal government (guarantees of deposits in failed thrifts) by another--obligations to pay bondholders. Outlays to purchase the assets of failed thrifts (sometimes referred to as "working capital") are purely financial transactions, which are reversed in subsequent years when these assets are sold back to the private sector, and the proceeds reduce the budget deficit by an equal amount.

When does the economic impact of deposit insurance occur? Most analysts agree that the effect occurs not when budget outlays are recorded but rather primarily when deposit insurance offsets any decline in consumer wealth that would have occurred without deposit insurance. This "avoided" decline in consumer wealth first occurs when the value of assets held by a problem thrift becomes insufficient to cover the deposit liabilities held by the thrift; that is, when the thrift's net worth becomes negative. When that happens, the federal government incurs a liability for deposit insurance equal to the negative net worth of the failed thrift.

CBO has developed preliminary estimates of the new federal obligations for thrift deposit insurance for each year during the 1980 - 1996 period. These amounts can be added to the spending numbers of the standardized-employment budget to produce a measure of fiscal policy that better approximates the timing of the economic effect of deposit insurance. When accrued federal liabilities for deposit insurance are growing, fiscal policy is more stimulative than the conventional measure indicates; when they are shrinking, fiscal policy is less stimulative than the conventional measure shows.

These calculations measured relative to potential GNP are shown in the figure below. For comparison, the figure also contains the standardized-employment deficit discussed in the text, which excludes both cash outlays and accruing federal liabilities for deposit insurance. In general, including estimates of accruing federal liabilities for deposit insurance raises the level of the standardized-employment deficit, but it does not alter the trend of fiscal policy.

Effect of Estimated Thrift Losses on the Standardized-Employment Deficit (By fiscal year)



SOURCE: Congressional Budget Office.

NOTE: The standardized-employment deficit measures exclude direct outlays for deposit insurance. The measure that includes thrift losses better reflects the overall impact of deposit insurance.

fall as a percentage of GNP, reducing federal claims on private saving and improving the prospects for capital accumulation and economic expansion (see Box I-3).

Another measure commonly used to assess the long-run effects of fiscal policy on economic growth is the total budget deficit adjusted for the decline in the real value of the federal debt as a result of inflation (as well as for deposit insurance). This measure, too, shows a substantial improvement from 1992 through 1996. However, the decline in the rate of federal dissaving--use of other savings to finance the federal deficit--is not rapid enough to bring to a quick halt the growth of the publicly held federal debt relative to GNP. CBO projects that this measure will rise through fiscal year 1994 before beginning a downward trend.

State and Local Government Budgets. Although states and localities do not design their budget policies to achieve national economic goals, their budgets do affect both aggregate demand and national saving. On balance, state and local governments will continue to have a total budget surplus over the next several years, but this results entirely from the projected surplus in their social insurance (for example, pension) trust funds, which is not available to finance current spending. Recently, however, many states and localities have had to cope with large deficits in their general funds projected for fiscal year 1992, which for most jurisdictions began in July 1991. In the short run, the resulting tax increases and reductions in planned spending will detract from overall demand. Thus, the state and local sector is not contributing to the recovery because of the need to cope with budget deficits.

Both the economic recovery and the recent actions taken to boost taxes and curb spending will reduce the general fund deficit of the state and local sector. However, a sizable deficit as reported in the national income and product accounts is apt to persist despite various constitutional and legislative provisions that limit the deficit financing of most types of spending. One important reason for this is that the state and local governments are expected to continue to rely heavily on debt to finance spending for construction. (Constitutional limits generally do not affect borrowing by state governments to finance construction.) Another reason is that, in many cases, a number of opportunities--deferred compensation, asset sales, and the like--are available to meet balanced budget requirements. These transactions have little if any effect on the economy.

## Monetary Policy, Inflation, and Risks in the Financial Markets

Continued easing of inflationary pressures allowed the Federal Reserve the freedom to ease monetary policy during the first half of 1991. Conditions in financial markets have kept money growth low and long-term interest rates high, however, and threaten to limit the strength of the recovery.

Monetary Policy. The Federal Reserve continued to ease monetary policy during the first half of 1991, while also setting out its longer-term targets for growth in the money supply. The central bank reduced the discount rate twice and cut the federal funds rate three times between January and July, stimulating declines in other short-term interest rates. Partly as a result, the growth rate of the money supply increased from its sluggish pace of the second half of 1990. The Federal Reserve announced a target range of 2½ percent to 6½ percent for growth in the monetary aggregate M2 in 1991, confirming the preliminary target that it had announced in July of last year.[2] The central bank also announced preliminary targets for M2 growth in 1992 that are unchanged from the targets for 1991.

The declines in the federal funds rate and the discount rate were reflected in short-term but not long-term interest rates during the first half of 1991 (see Figure I-2). The yield on three-month Treasury bills--a short-term rate that the Federal Reserve does not directly control--declined by about one percentage point, to 5½ percent, about the same as the declines in the federal funds and discount rates. Long-term interest rates, which had fallen by about 0.3 percentage points during late 1990, proved to be more stubborn, fluctuating during the first half of 1991 in a narrow band around the level at which they started the year.

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[2] The M2 definition of the money supply includes all currency in circulation, checkable deposits, small time and saving deposits, and most money-market accounts.

## BOX I-3
## WHAT DID OBRA ACCOMPLISH?

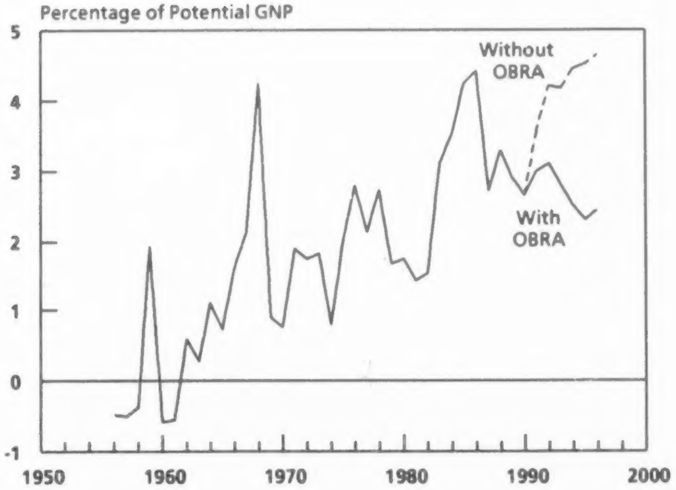
The budget deficit trends down between 1991 and 1996 for two main reasons: the projected decline in spending on deposit insurance, and improved economic conditions, which raise revenues and reduce outlays. Leaving aside these factors, as well as the temporary foreign contributions to finance Operation Desert Storm in 1991, the remaining, or structural, component of the deficit does not decline. This lack of improvement in the fiscal policy outlook is troublesome, especially in light of the strenuous efforts of the Congress and the Administration last fall to agree on the Omnibus Budget Reconciliation Act of 1990 (OBRA). What has this act accomplished, and why is the remaining deficit problem so large?

As troubling as the deficit outlook is, it would be much worse if the OBRA cuts had not been made, as the figure suggests. Without the deficit reductions achieved through OBRA, the standardized-employment deficit for 1996 would be in the neighborhood of $350 billion instead of $183 billion. Thus, it now appears that the main accomplishment of OBRA was not to reduce the size of the structural deficit, but rather to prevent it from becoming substantially larger. Without OBRA, the federal deficit would eat up even more of national saving and would reduce capital formation and growth. Moreover, although the standardized-employment deficit does not fall in dollar terms, the growth of the economy means that it does form a smaller share of potential GNP in 1996 than in 1991--down from 3 percent to 2½ percent. Without OBRA, the standardized-employment deficit in 1996 would stand at a record of more than 4½ percent of potential GNP.

The size of the projected deficit is in large part the result of the growth of interest outlays in the past decade. Budget measures that exclude interest payments, known as "primary" measures, are a better indicator of current budgetary policies, as interest payments largely reflect past budgetary decisions. The primary standardized-employment budget is not now in deficit, and indeed will register the largest primary surplus in over 30 years, amounting to more than 1 percent of potential GNP, near the end of the projection period.

All this aside, the budget outlook now appears worse than it did in January. At that time, it seemed likely that OBRA would lead to a substantial reduction in the standardized-employment deficit from 1991 through 1996. Since then, the outlook for the deficit *both with and without* OBRA is bleaker, both as a result of reassessment of the economic outlook and because of other technical changes in the budget projections. These economic and technical changes, detailed in Chapter II, do not, however, alter the estimate of the amount of deficit reduction under OBRA as compared with what it would otherwise have been.

Effect of OBRA on the
Standardized-Employment Deficit
(By fiscal year)

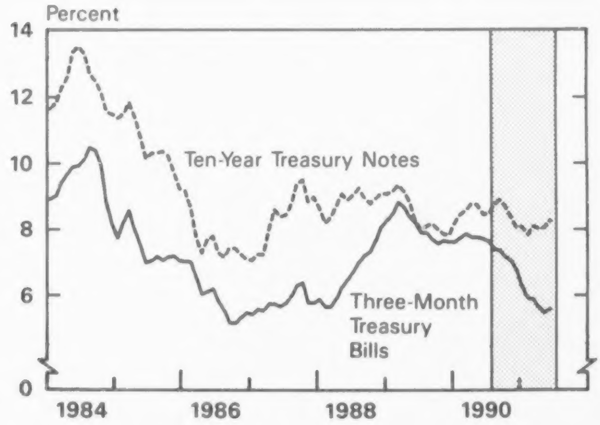


SOURCE: Congressional Budget Office.

Some analysts interpreted the failure of long-term rates to drop as evidence that financial markets questioned the Federal Reserve's resolve to control inflation. However, it could also reflect the large amount of debt that the Treasury is expected to issue throughout 1991, and prospects that Japanese and other foreign purchasers will be less aggressive buyers of Treasury securities this year. In addition, as the discussion later in this chapter will show, financial pressures in other countries probably helped prop up long-term rates.

While nominal interest rates declined over the course of the recession, real interest rates--those adjusted for expectations of inflation--do not appear to have fallen, and may well have increased. Since expectations of inflation are unobservable, it is difficult to measure real interest rates with confidence. However, CBO's estimates indicate that short-term real interest rates were roughly the same in mid-1991 as they were before the recession started and that long-term real rates

## Figure I-2. Interest Rates



SOURCES: Congressional Budget Office; Federal Reserve Board.

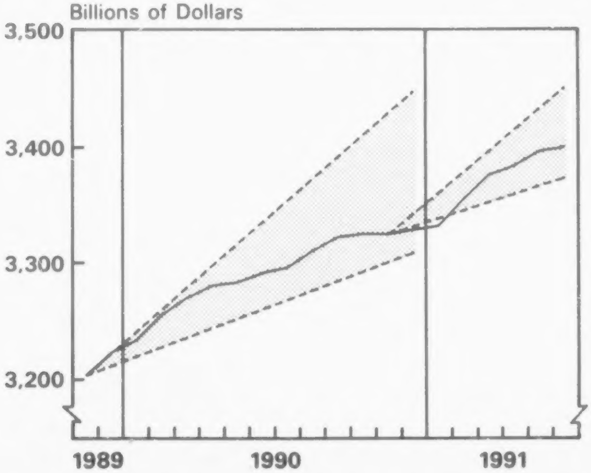
NOTE: The shaded area assumes the recession trough occurred in the second quarter of 1991.

increased slightly during the recession. If these estimates are correct, the relatively high level of real interest rates could help slow the recovery.

Quite aside from its effects on interest rates, some analysts have argued that monetary policy has kept the growth of the money supply too low to support a recovery. Although the nominal growth of M2 has picked up in 1991 to an annual rate of 4 percent from a rate of only 2.5 percent in the second half of 1990, the money supply is falling in real terms (see Figure I-3). Some analysts doubt that a falling real money supply can support the growth in real GNP that is necessary if there is to be an economic recovery.

These concerns, however, may be overdrawn because the amount of GNP that each dollar of the money supply can support is likely to

**Figure I-3. M2 Money Growth and Targets in 1990 and 1991**



SOURCES: Congressional Budget Office; Federal Reserve Board.

NOTE: Shaded areas indicate target ranges. The range for M2 was 3 percent to 7 percent in 1990, and is 2½ percent to 6½ percent in 1991. M2 includes M1 (currency in the hands of the public, travelers' checks, checkable deposits) plus small time and savings accounts, money-market deposit accounts, many money-market mutual funds, many repurchase agreements, and overnight Eurodollars held by U.S. residents.

rise over the next several quarters. Financial economists have long known that real GNP can grow faster than the real money supply when market interest rates are rising, and when the interest yield on many assets included in M2 are falling, as in the current recovery. But recent developments in the thrift and banking industries suggest that growth in real GNP may exceed that in the money supply by additional amounts, at least for the next several months.

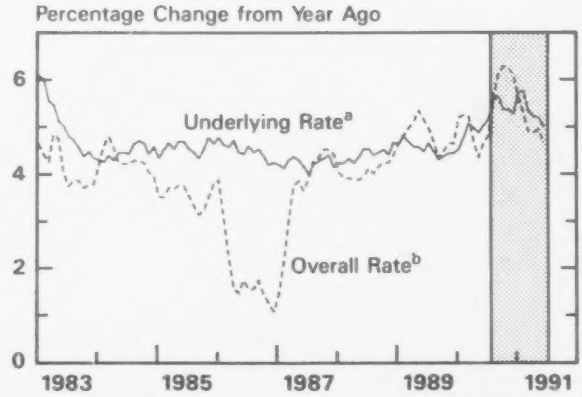
Deposits at thrift institutions--one of the major elements of the money supply--have fallen steadily in recent months in response to the continuing problems in that industry. Banks, for their part, have curtailed the growth of both their lending and their deposits in response to the need to increase their capital. (Deposits at banks are another important component of M2.) Taken together, these changes among financial institutions help explain the decline in the ratio of M2 to GNP and may imply some further decline. Consequently, though slow growth in M2 is a concern, it does not necessarily threaten to slow the growth of GNP.

*Recent Inflation*. Although most measures of inflation were raised by transitory factors during late 1990 and early 1991, the underlying trend is toward moderating inflation. The consumer price index (CPI) advanced at a 7 percent rate during the second half of 1990, well above its average of the previous several years, before dropping back to a 2.9 percent rate of growth during the first half of 1991. Similarly, measures of the underlying rate of inflation--that is, measures stripped of the most volatile elements--rose during the recession, and have only recently started to fall (see Figure I-4).

The high and volatile rates of inflation during the recession were primarily the result of temporary factors, particularly variation in energy prices and the increases in federal excise tax rates in December and January. Increased tax rates affected gasoline, alcoholic beverages, cigarettes, airline passenger tickets, and luxury goods. Other sources of temporary inflationary pressure arose from increased postal rates, the December freeze in California (which raised food prices in early 1991), an unusual timing for increases in apparel prices, and an apparent abnormality in the price index for out-of-town lodging. These influences lifted the measured rate of CPI inflation in late 1990 and early 1991, but none are expected to have a permanent effect.

Changes in the price of oil helped to moderate inflation in early 1991. Oil prices plunged during the first quarter, when it became clear that little damage to Saudi Arabian oil installations was likely to result from the Persian Gulf War. This decline directly depressed the rate of CPI inflation by about 2.5 percentage points during the first quarter of 1991. Although energy prices are not reflected directly in the underlying rate of inflation, their decline did reduce that rate indirectly, since changes in energy prices affect production costs of all goods and services. Energy prices stopped falling by the second quarter of 1991 and are expected to exert only mild inflationary pressure during the recovery.

Figure I-4.
Recent Inflation



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

NOTE: The shaded area assumes the recession trough occurred in the second quarter of 1991.

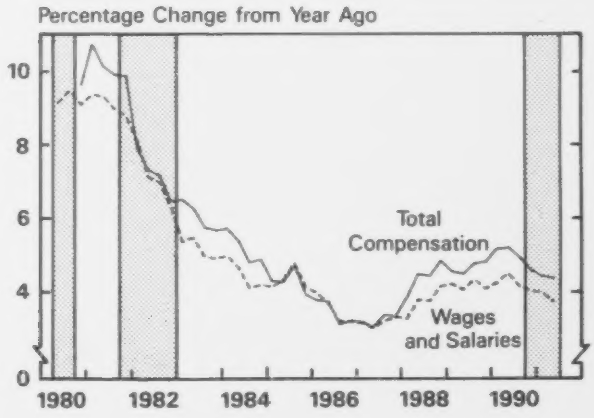
a. Consumer price index for all urban consumers (CPI-U) less food, energy, and used cars.

b. CPI-U from January 1983 to present; before that time, the series incorporates a measure of homeownership conceptually similar to that of the current CPI-U.

The unexpected appreciation in the exchange value of the dollar that started during the first quarter of 1991 contributed to lower inflation by putting downward pressure on the prices of imported goods. Since CBO projects a stable dollar over the near term, however, this salutary effect on inflation should also prove to be temporary.

The rate of growth of labor costs, the largest component of business costs, should slow down, thereby reducing the underlying rate of inflation. Rising labor costs, unless they are matched by gains in productivity, squeeze the profit margins of firms and encourage increases in the prices of products. These developments, in turn, foster further increases in wages. The rate of growth of labor costs--both wages and salaries and total compensation--slowed during 1990 and early 1991. This slowdown was a result of slack in the labor market brought about by slowing economic growth (see Figure I-5). Faster growth in labor

**Figure I-5.**
**Wage Growth**



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

NOTES: Data are employment cost indexes for private workers.

The shaded area for 1990-1991 assumes the recession trough occurred in the second quarter of 1991.

productivity during the second quarter of 1991 reinforced the effect of slower wage growth on prices. If the current recovery follows the standard pattern, wage gains will continue to slow and productivity will pick up, easing inflationary pressures further.

Financial Market Risks. The behavior of lending institutions and the buildup of debt by consumers and corporations during the 1980s led some economists to forecast that the recession of 1990-1991 would be deeper or more prolonged than the average postwar recession. In particular, they were concerned that the so-called "credit crunch" and the heavy debt burdens of corporations and households could turn a mild contraction into a severe recession. However, the effects of these financial market risks appear to be concentrated in only a few sectors. They may, therefore, not have deepened the recession significantly and will have only a slight impact on the recovery.

In particular, over the past year, many observers have expressed concern that banks have become extremely wary about making loans. Bankers have had several reasons to be cautious lenders: they have faced higher capitalization requirements, increased scrutiny by regulating agencies, deteriorating portfolios of real estate loans, and, of course, the recession. Although credit problems undoubtedly have been severe in some parts of the country and in certain sectors, financial statistics for the economy as a whole provide little evidence of widespread credit rationing outside of the real estate sector. Further, there is little evidence that the credit market restraint of late 1990 and early 1991 was more restrictive than what usually occurs during a recession.

The growth of bank credit to the rest of the economy clearly slowed during the recession, though increased credit from other sources, such as finance companies and foreign banks, partially offset the sluggishness. The alternative sources of credit have not, however, reversed the slowing of growth in total credit to business. In addition, banks continued to channel an increasing share of loanable funds into safe government securities rather than into loans to businesses and individuals. Their behavior may, in part, have been to avoid increased risk of default during a recession, but it is also clearly the result of the favorable treatment that government securities receive under new regulatory stipulations for the amount of capital that banks must hold.[3]

CBO does not expect the credit crunch to have a large impact on the recovery for three reasons. First, profit margins of banks on new loans have improved, as measured by widened spreads between lending and borrowing rates. Although this widening could reflect a continued reluctance to lend, it is also a necessary condition for a revival in lending growth. Second, the Federal Reserve's survey of loan officers at banks found fewer reporting tightened standards than in the fourth quarter of 1990. Last, corporate retained earnings are expected to grow sharply during the recovery as they have following past recessions, and should be sufficient to finance an upturn in investment.

Increased debt burdens of businesses and individuals also could increase the economy's vulnerability. *Corporate debt levels*, as measured by ratios of debt to GNP, debt to assets, or interest payments to cash flow, increased rapidly during recent years, partly the result of merger and acquisition activity. Such a high debt burden could make the business sector more vulnerable to recession than in the past, because the higher interest payments associated with such debt represent a fixed charge against a slowing cash flow. Despite the occurrence of several well-publicized bankruptcies during the past year, the high corporate debt burden did not, as some analysts had feared, make the recession more severe than average.

*Household debt* has also risen, and this may pose more of a hazard for the recovery. Since the 1950s, rising household debt has generally been outpaced by growing asset levels, allowing household net wealth to increase steadily. But household wealth was flat in 1990, its growth halted by soft real estate and stock markets and continued home mortgage borrowing. Since the cost of living continued to rise, household net wealth actually declined in real terms during 1990. Household debt levels may have restrained consumer spending during the recession, and though the stock market wealth of households has improved since the end of 1990, the debt burden could still impair the recovery.

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[3] The United States and other members of the Basle Committee on Banking Supervision agreed to new "risk-based capital adequacy requirements" in 1988. These cover the amount of funds or "capital" that banks' shareholders are required to put into their institutions. The requirements, which are to be phased in by 1993, are designed to harmonize and strengthen international capital standards by setting minimum ratios of capital to assets weighted by risk.

CBO does not, however, expect consumer debt to retard spending on consumption significantly during the recovery, if only because consumer spending depends far more heavily on income than it does on wealth. So, while CBO expects spending on consumption to grow sluggishly during the recovery, this prediction has more to do with slower growth of real disposable income than it does with excessive debt. In addition, consumers as a whole do not seem to have taken on more debt than they can handle: delinquency rates on consumer debt increased slightly during the recession, but they have not surged to the degree experienced in previous recessions. Of course, a deepening or further spread of declines in home prices might significantly restrain consumer spending, but these outcomes are not currently forecast.

## Foreign Economic Developments and the Dollar

U.S. exports were an important engine of growth during the late 1980s and a bright spot during the recession. However, international developments suggest that growth in exports could slacken over the near term. Worldwide growth has slowed considerably, and some U.S. major trading partners may still be in recession. Despite slower growth, many foreign monetary and fiscal policies are tight, and such policies could prop up interest rates--further restraining growth. The recent rise in the exchange value of the dollar, by making U.S. goods less competitive in foreign markets, further darkens the outlook. U.S. exports of capital goods and services may be boosted, however, by the increased capital demands resulting from restructuring in Europe, rebuilding in the Middle East, and the investment in infrastructure in the Far East. On balance, though, these international developments are likely to dampen growth of exports and moderate the recovery.

World economic growth has continued to slow during the first half of 1991, but is projected to pick up during the second half of 1991 and early 1992. The economies of the United Kingdom and Canada continued to contract during the first half of 1991, and growth slowed in several other European countries, particularly France. One can find additional sources of weakness in Eastern Europe, where the transition to market economies is proving more painful than originally anticipated, and the Middle East, where the war ravaged the infrastructures of Kuwait and Iraq and disrupted other economies by reducing the flow of remittances and other sources of income from Iraqi and Kuwaiti oil fields. Balanced against these setbacks was the strength of Japan, western Germany, Mexico, and the newly industrializing countries (NICs) of Asia. Most forecasters believe that faster world growth will resume in late 1991 and continue in 1992 as the United Kingdom and Canada pull out of recession.

Despite a general sluggishness of economic growth abroad, foreign monetary policies remain fairly tight. The countries pursuing tight monetary policies fall into two camps. The first includes those countries, such as Germany and Japan, whose economies are still expanding. The central banks of these countries are more concerned with combating inflation than in forestalling a recession, so they have maintained their policies of monetary restraint. In addition, the German central bank has kept interest rates high in that country to support the Deutschemark against the forces that have pushed it down on currency markets. The second camp includes countries that are pursuing strict monetary policies in order to maintain the values of their currencies on international exchange markets. In particular, countries taking part in the European Monetary System need to keep the values of their currencies at fixed levels in relation to the German mark. In effect, German monetary policy has heavily constrained the monetary policies of these countries. In recent months, this has meant that these countries have had to keep interest rates high to match German rates.

Foreign fiscal policies are another force tending to impede growth abroad and, therefore, the growth of U.S. exports. Given the slowing in economic growth, one might expect to see most foreign countries adopt an expansionary fiscal stance. With the notable exception of Germany, this has not been true. Although the government deficits of several of the Group of Seven (G7) countries deteriorated in 1990 and are expected to do so again in 1991, this deterioration is primarily the result of the cyclical component of fiscal policy. The discretionary component--analogous to the standardized-employment deficit in the United States--reveals a mildly contractionary stance to fiscal policy in 1991 that is expected to continue in 1992 for most of the industrialized countries.

The deterioration in the fiscal balances of the major industrial nations, together with developments in the Persian Gulf and East Asia, does place demands on the world capital market. The increase in the average G7 deficit, combined with a public infrastructure boom in Asia and the costs of rebuilding eastern Europe and the war-torn countries of Iraq, Iran, and Kuwait, has led some analysts to fear that there could be a global capital shortage in the 1990s, which would lead to significantly higher world interest rates.

CBO, however, does not expect worldwide demands for capital to cause a surge in world interest rates that will stifle the recovery. According to CBO's estimates, the fiscal costs of German reunification may already have increased U.S. real interest rates by between 0.5 and one percentage point, but little additional pressure should occur.[4] The huge public infrastructure programs planned by Japan and the Asian NICs for this decade are to be partly financed by tax revenues, so there would be limited effects on world capital markets. Rebuilding eastern Europe would require a staggering amount of capital; however, the problems of transforming these economies are so formidable as to limit their capacity to absorb--not to mention the desire of foreigners to invest--foreign capital. The latest estimates of the cost of rebuilding Kuwait, about $30 billion, are significantly lower than those that appeared immediately after the war, and are a small fraction of the total supply of world capital. Unfortunately, Iraq and Iran will probably have only limited access to international capital markets over the next several years, and so the costs of rebuilding will have to be financed mostly out of domestic savings.

This analysis presupposes no massive multilateral aid program to the Soviet Union. But events in that part of the world have proved impossible to predict, and, consequently, this assumption could prove wrong.

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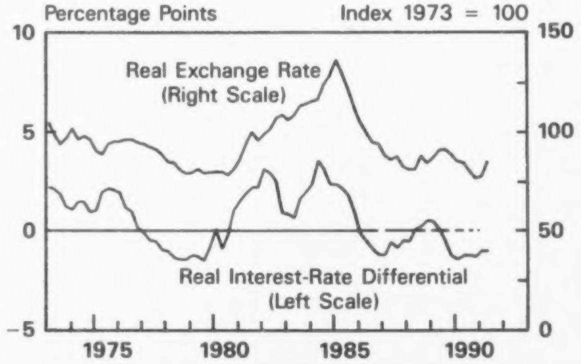
[4] See CBO, *How the Economic Transformations in Europe Will Affect the United States* (December 1990), Chapter IV and Appendix B.

Analysts were surprised that the dollar appreciated so strongly on international exchange markets during the first half of 1991 (see Figure I-6). The robustness of the dollar hurts the competitiveness of U.S. goods in foreign markets, and has the potential to impair the growth of U.S. exports and the recovery. Three reasons help to explain the recent appreciation of the dollar:

o Weakness in the Deutschemark. A good part of the increase in the value of the dollar reflected the weakness of the Deutschemark (DM). Analysts attribute the fall in the DM to a number of factors: the collapse in confidence about economic prospects for eastern Germany; the deteriorating outlook for an important borrower and trading partner, the

**Figure I-6. The Exchange Rate and the Interest-Rate Differential**



SOURCES: Congressional Budget Office; Federal Reserve Board; International Monetary Fund.

NOTES: The real exchange rate is the level of U.S. consumer prices relative to consumer prices in 10 industrialized countries, weighted by trade shares and adjusted by dollar exchange rates against the currencies of those countries. Its movements are dominated by movements in exchange rates. An increase in the real exchange rate corresponds to dollar appreciation.

The real interest-rate differential is the difference between U.S. real long-term interest rates and an average of foreign real long-term rates weighted by gross domestic product. Real interest rates are nominal long-term rates less expected inflation, estimated by a centered two-year moving average of actual and forecast inflation rates.

Soviet Union; the decision by the German government to reduce its deficit by increasing taxes substantially; and the subsequent lowering of near-term forecasts for real growth and long-term interest rates, both nominal and inflation-adjusted, in western Germany.

- Interest-rate differentials. The appreciation of the dollar was a reaction to the slight increase in real long-term interest rates in the United States relative to those abroad, and the anticipation of further increases as the U.S. economy recovers.

- Confidence in the outlook for the U.S. economy--stemming from the quick conclusion to the Gulf War and early indications of a recovery--increased demand for dollars.

CBO expects that each of the factors that caused the dollar's appreciation during early 1991 will persist. Consequently, the dollar should remain strong over the near term. The recovery in the United States will bolster confidence in the economy, and further increase real long-term interest rates in the United States relative to those abroad. Both will increase demand for dollars. In addition, the economic prospects in Germany are expected to remain clouded over the near term, and will continue to put downward pressure on the DM relative to the dollar.

## CBO'S ECONOMIC FORECAST

CBO believes that the recession ended and a recovery began during the second quarter of 1991. The recovery, like the recession, is apt to be more moderate than the average experience over the postwar period. Moreover, there remains a significant risk that the recovery could stall after only a few months. Several of the factors discussed in the first section of this chapter account for the weak recovery, and for risks of a renewed slowdown: fiscal restraint at the state and local levels; reduced growth in U.S. exports as the economies of trading partners slow; high real interest rates; and problems in the financial sector, from the credit crunch to the debt overhang.

## The Forecast for 1991 and 1992

CBO forecasts that real GNP will rise 1.1 percent between the fourth quarters of 1990 and 1991, and 3.3 percent between the fourth quarters of 1991 and 1992 (see Table I-2 and Figure I-7). This recovery is modest by historical standards. Real GNP is expected to grow 3.7 percent over the first four quarters following the trough, compared with an average of 6.7 percent for all previous postwar recoveries. The civilian unemployment rate, which increased nearly 1.5 percentage points during the recession, is forecast to peak at about 7 percent in mid-1991 before declining steadily during the recovery and subsequent expansion. Inflation, as measured by growth in the CPI, will slide from its 6.3 percent rate during 1990 to 3.2 percent during 1991 and then rise to 3.9 percent during 1992. Interest rates, which declined during the recession, should rise slightly during the recovery; short-term rates, represented by the rate on three-month Treasury bills, rise 0.4 percentage points between 1991 and 1992. The 10-year Treasury note rate rises slightly in the CBO forecast.

Domestic demand will spark growth during the recovery. Both consumption and the construction of single-family homes are expected to post mild gains during 1991. Growth in consumption and residential construction should be sufficient to allow final sales to resume expanding, which in turn should spur rebuilding of inventory stocks by businesses. Even with the moderate growth assumed for final sales, a stable ratio of inventory to sales by early 1992 would create a swing of $50 billion in investment in inventories during the first year of the recovery, providing a significant boost to GNP growth. As sales and corporate profits grow, the recovery should be sustained into 1992 as businesses resume spending for investment in their plant and equipment.

A weakening of real net exports partially offsets the domestic sources of growth, which represents an important difference from recent CBO forecasts. The improvement in real net exports since late 1986 has been a source of growth, sustaining the expansion in the late 1980s and softening the severity of the recession. The appreciation of the dollar in early 1991, as well as the combination of slow foreign and accelerating domestic growth, are the culprits for the deterioration in the trade balance.

## TABLE I-2. COMPARISON OF CBO, ADMINISTRATION, AND *BLUE CHIP* FORECASTS FOR 1991 AND 1992

| | Actual | Forecast | |
|---|---|---|---|
| | 1990 | 1991 | 1992 |
| **Fourth Quarter to Fourth Quarter (Percentage change)** | | | |
| Nominal GNP | | | |
| CBO | 4.5 | 4.6 | 6.7 |
| Administration | 4.5 | 5.0 | 7.5 |
| *Blue Chip* | 4.5 | 4.9 | 6.5 |
| Real GNP | | | |
| CBO | 0.5 | 1.1 | 3.3 |
| Administration | 0.5 | 0.8 | 3.6 |
| *Blue Chip* | 0.5 | 0.9 | 2.8 |
| Implicit GNP Deflator | | | |
| CBO | 4.0 | 3.5 | 3.3 |
| Administration | 4.0 | 4.2 | 3.8 |
| *Blue Chip* | 4.0 | 3.9 | 3.6 |
| Consumer Price Index[a] | | | |
| CBO | 6.3 | 3.2 | 3.9 |
| Administration | 6.2 | 3.4 | 3.9 |
| *Blue Chip* | 6.3 | 3.5 | 4.0 |
| **Calendar-Year Averages (Percent)** | | | |
| Civilian Unemployment Rate[b] | | | |
| CBO | 5.5 | 6.7 | 6.2 |
| Administration | 5.4 | 6.6 | 6.4 |
| *Blue Chip* | 5.5 | 6.7 | 6.5 |
| Three-Month Treasury Bill Rate | | | |
| CBO | 7.5 | 5.8 | 6.2 |
| Administration | 7.5 | 5.7 | 5.9 |
| *Blue Chip* | 7.5 | 5.8 | 6.1 |
| Ten-Year Government Note Rate | | | |
| CBO | 8.6 | 8.2 | 8.3 |
| Administration | 8.5 | 8.0 | 7.8 |
| *Blue Chip*[c] | 8.6 | 8.2 | 8.3 |

SOURCES: Congressional Budget Office; Office of Management and Budget; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators*.

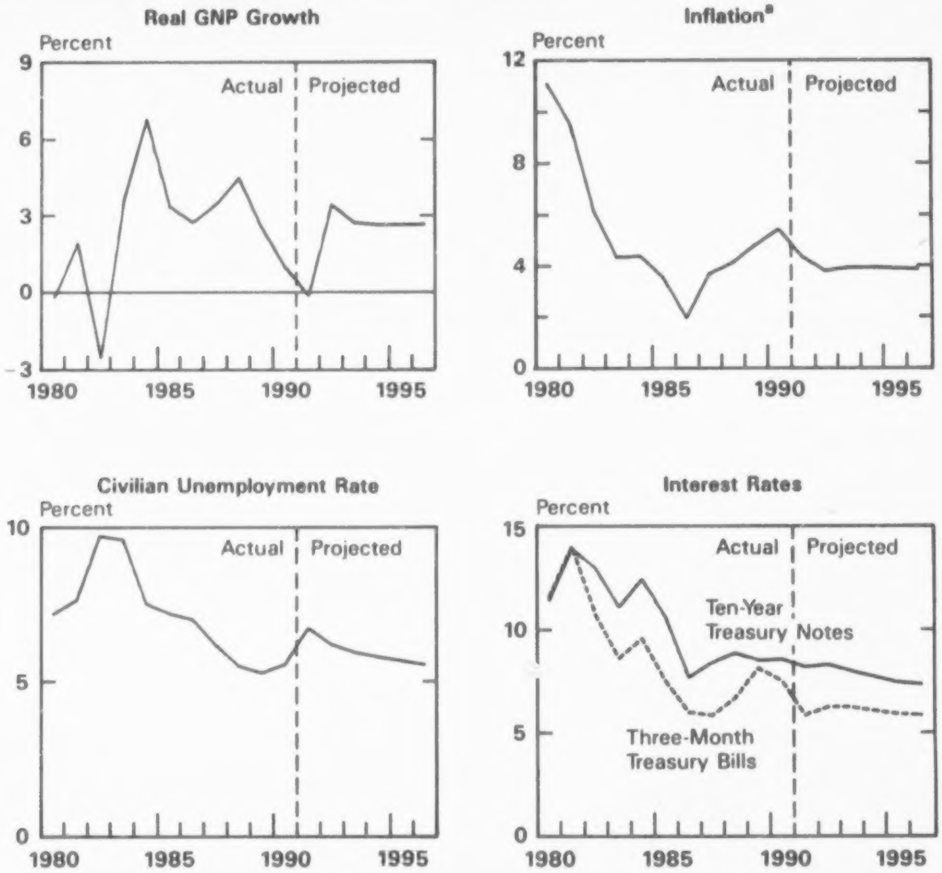
NOTE: The *Blue Chip* forecasts through 1991 are based on a survey of 50 private forecasters, published on July 10, 1991.

a. Consumer price index for all urban consumers (CPI-U) for CBO and the *Blue Chip*; consumer price index for urban wage earners and clerical workers (CPI-W) for the Administration.

b. The Administration's projection is for the total labor force, including armed forces residing in the United States, and the CBO and *Blue Chip* projections are for the civilian labor force excluding armed forces. In recent years, the unemployment rate for the former has tended to be 0.1 to 0.2 percentage points below the rate for the civilian labor force alone.

c. *Blue Chip* does not project a 10-year note rate. The values shown here are based on the *Blue Chip* projection of the Aaa bond rate, adjusted by CBO to reflect the estimated spread between Aaa bonds and 10-year government notes.

Figure I-7.
The Economic Forecast and Projection



Real GNP Growth

Inflation[a]

Civilian Unemployment Rate

Interest Rates

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Federal Reserve Board.

a. Consumer price index for all urban consumers (CPI-U) from January 1983 to present; before that time, the series incorporates a measure of homeownership conceptually similar to that of the current CPI-U.

The Outlook for Interest Rates. Nominal interest rates, which declined during the recession of 1990-1991, are expected to rise slightly during the next year. As the economy recovers and demand for credit resumes, short-term interest rates rise 0.7 percentage points from their trough in the second quarter of 1991, reaching a peak of 6.3 percent by the end of 1992. Long-term rates rise 0.4 percentage points from their trough in the first quarter of 1991, peaking at 8.4 percent in early 1992.

The Outlook for Inflation. CBO forecasts that a mild easing of inflationary pressures will stem from the recession. Unemployment and excess capacity in the recession should restrain the growth of wages, and ultimately, prices of final goods, thereby lowering the rate of inflation. CBO projects changes in the underlying rate of inflation in terms of the size of the unemployment gap--the difference between the actual unemployment rate and a benchmark rate known as the NAIRU (for nonaccelerating inflation rate of unemployment). Using a standard rule of thumb, CBO forecasts that a decline of one percentage point in the inflation rate will result from the two point-years of unemployment above the NAIRU that CBO expects to result from the recession.

Other factors also influence the CBO forecast for inflation over the short term, including movements in the exchange value of the dollar, and oil and food prices. Unlike 1990, when all three added to inflation, all three have helped lower the rate of inflation during the first half of 1991. In the second half of 1991, oil and food prices are expected to grow at about the same rate as the overall CPI, but the recent strength of the dollar is expected to restrain import price growth and overall inflation.

Comparison with Other Forecasts. The CBO forecast for economic growth is quite similar to the average of private forecasters represented by the *Blue Chip* consensus survey (see Table I-2). Like CBO, the *Blue Chip* forecasts a recovery for the second half of 1991, though it is even milder than CBO's. Growth of real GNP between the fourth quarters of 1990 and 1991 in the *Blue Chip* forecast is 0.2 percentage points lower than CBO's. The *Blue Chip* average is somewhat less optimistic about the decline in inflation in 1991 than is CBO. Overall, however, the two forecasts are quite similar.

The Administration's forecast is also similar to that of CBO, though it differs slightly more than the *Blue Chip* does. The Administration is somewhat less optimistic than CBO about economic growth in 1991 and more optimistic in 1992; real GNP growth is 0.3 percentage points below and 0.3 percentage points above CBO's forecast in 1991 and 1992, respectively. The Administration has a similar view to that of CBO about the prospects for inflation over the next two years, but it is more optimistic about the level of short-term and long-term interest rates.

Risks to the Forecast. The most serious risk to the CBO forecast is the possibility that the preliminary indications of recovery were premature, and that, perhaps after one or two quarters of positive growth, the contraction will resume. Such a "double-dip" recession would not be unprecedented; three of the past four recessions included a quarter of positive growth followed by more contraction. Still, the recent behavior of total hours worked in the economy suggests that a double-dip recession is unlikely.[5] This series rose during the second quarter of 1991 and, unlike GNP, it has never sent a false signal of recovery on a quarterly basis during the entire postwar period.

However, the possibility of a double dip cannot be ruled out. Several sources of weakness, including those cited earlier as reasons to expect a weaker-than-average recovery, could bring about a double-dip recession. For example, the Federal Reserve's monetary easing during the recession could prove to have been insufficient to finance a recovery. Or economic growth in U.S. trading partners' economies could be more sluggish than expected, snuffing out growth in U.S. exports. Or debt-burdened consumers could decide, even in the face of rising real income, to postpone expenditures in order to rebuild their assets. Or banks could display a continued reluctance to make loans, restraining the growth of credit below the rates needed to allow a recovery. Or budget deficits at the state and local level could lead to more restraint on spending and higher taxes than expected, slowing the growth of aggregate demand. The recession could return if these sources of weakness proved to be more significant than CBO expects.

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[5] "Total hours" is more precisely defined as total hours worked by wage and salary workers in private, nonagricultural establishments.

## The Projections for 1993 Through 1996

Because of the uncertainty involved, CBO does not attempt to forecast economic fluctuations beyond the end of 1992. Instead, CBO projects economic growth and other developments using trends extrapolated from fundamental economic variables, including the labor force, national saving, and productivity. These variables are used to project potential, or long-run, values of variables such as GNP and interest rates. Actual values of these variables are then derived using the historical relationship between the actual and potential values (see Tables I-3 and I-4).

The Projection for Growth. CBO projects that growth in real GNP will average 2.5 percent over the 1990-1996 period. The current projection for economic growth is slower than that in CBO's January report, and results in a 1996 value for real GNP that is lower than was projected in January. The projection for real GNP stems from CBO's projection of potential GNP, which is computed largely on the basis of growth in the labor force, the capital stock, and total factor productivity--a measure of independent influences on the productivity of labor and capital.

CBO's projections for the growth in the labor force and total factor productivity, both of which are cyclically adjusted, have changed little from those made in January. Projected growth in the labor force equals that in the Bureau of Labor Statistics' mid-range projections, and averages 1.3 percent over the 1990-1996 period. The projection for total factor productivity is based on recent historical experience; during the 1990-1996 period, it is assumed to continue its trend rate of growth from the 1980s, which was about 0.7 percent.

The capital stock is projected to grow at an average rate of 2.6 percent over the 1990-1996 period, 0.1 percentage points below its average rate of growth projected in January. Growth in the capital stock depends primarily on the national saving rate (total private and public saving) plus overseas borrowing, which determine the amount of funds that are available to finance investment. CBO projects that the private saving rate will revive after the recession, but will be lower than it was in CBO's January report.

TABLE I-3. MEDIUM-TERM ECONOMIC PROJECTIONS FOR CALENDAR YEARS 1993 THROUGH 1996

| | Actual | Forecast | | Projected | | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
| Nominal GNP (Billions of dollars) | 5,465 | 5,655 | 6,037 | 6,409 | 6,798 | 7,211 | 7,650 |
| Nominal GNP (Percentage change) | 5.1 | 3.5 | 6.7 | 6.2 | 6.1 | 6.1 | 6.1 |
| Real GNP (Percentage change) | 1.0 | -0.1 | 3.4 | 2.7 | 2.6 | 2.6 | 2.6 |
| Implicit GNP Deflator (Percentage change) | 4.1 | 3.6 | 3.2 | 3.4 | 3.4 | 3.4 | 3.4 |
| Fixed-Weighted GNP Price Index (Percentage change) | 4.6 | 4.1 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| CPI-U (Percentage change) | 5.4 | 4.3 | 3.8 | 3.9 | 3.9 | 3.9 | 3.9 |
| Unemployment Rate (Percent) | 5.5 | 6.7 | 6.2 | 5.9 | 5.8 | 5.7 | 5.5 |
| Three-Month Treasury Bill Rate (Percent) | 7.5 | 5.8 | 6.2 | 6.2 | 6.0 | 5.9 | 5.8 |
| Ten-Year Treasury Note Rate (Percent) | 8.6 | 8.2 | 8.3 | 8.0 | 7.7 | 7.4 | 7.3 |
| Tax Bases (Percentage of GNP) | | | | | | | |
| Corporate profits | 5.5 | 5.5 | 6.2 | 6.2 | 6.1 | 5.9 | 5.8 |
| Other taxable income | 22.2 | 21.8 | 21.7 | 21.8 | 21.8 | 21.6 | 21.5 |
| Wage and salary disbursements | 49.5 | 49.3 | 49.0 | 49.1 | 49.2 | 49.3 | 49.3 |
| Total | 77.2 | 76.6 | 77.0 | 77.1 | 77.0 | 76.8 | 76.6 |

SOURCE: Congressional Budget Office.

NOTE: CPI-U is the consumer price index for all urban consumers.

### TABLE I-4. MEDIUM-TERM ECONOMIC PROJECTIONS FOR FISCAL YEARS 1993 THROUGH 1996

| | Actual | Forecast | | Projected | | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
| Nominal GNP (Billions of dollars) | 5,406 | 5,591 | 5,939 | 6,315 | 6,699 | 7,106 | 7,538 |
| Nominal GNP (Percentage change) | 5.4 | 3.4 | 6.2 | 6.3 | 6.1 | 6.1 | 6.1 |
| Real GNP (Percentage change) | 1.3 | -0.3 | 2.9 | 2.9 | 2.6 | 2.6 | 2.6 |
| Implicit GNP Deflator (Percentage change) | 4.0 | 3.7 | 3.3 | 3.4 | 3.4 | 3.4 | 3.4 |
| Fixed-Weighted GNP Price Index (Percentage change) | 4.4 | 4.3 | 3.6 | 3.7 | 3.7 | 3.7 | 3.7 |
| CPI-U (Percentage change) | 5.0 | 5.1 | 3.6 | 3.9 | 3.9 | 3.9 | 3.9 |
| Unemployment Rate (Percent) | 5.4 | 6.5 | 6.3 | 6.0 | 5.8 | 5.7 | 5.6 |
| Three-Month Treasury Bill Rate (Percent) | 7.7 | 6.1 | 6.1 | 6.2 | 6.1 | 5.9 | 5.8 |
| Ten-Year Treasury Note Rate (Percent) | 8.4 | 8.2 | 8.3 | 8.0 | 7.8 | 7.5 | 7.3 |
| Tax Base (Percentage of GNP) | | | | | | | |
| Corporate profits | 5.5 | 5.3 | 6.1 | 6.2 | 6.1 | 6.0 | 5.8 |
| Other taxable income | 22.2 | 21.9 | 21.7 | 21.8 | 21.8 | 21.7 | 21.5 |
| Wage and salary disbursements | 49.5 | 49.4 | 49.1 | 49.1 | 49.1 | 49.2 | 49.3 |
| Total | 77.2 | 76.6 | 76.9 | 77.1 | 77.0 | 76.8 | 76.7 |

SOURCE: Congressional Budget Office.

NOTE: CPI-U is the consumer price index for all urban consumers.

The public saving rate should also improve over the medium term, a result of deficit reduction, especially by state and local governments, and the beneficial effects of economic growth on both federal and state government revenues and outlays. However, the public saving rate is projected to be lower over the medium term than it was in CBO's January report. This outlook for private and public saving reduces the expected rate of capital formation, lowering the potential rate of growth over the 1990-1996 period and the level of potential GNP in 1996.

Growth in labor productivity in the nonfarm business sector averages 1.3 percent during the 1990-1996 period, down 0.1 percentage points from CBO's January report (see Table I-5). Labor productivity depends on total factor productivity and the amount of capital available per worker; slower capital formation, combined with a labor force that is projected to grow at about the same rate as in the January report, implies slower growth in labor productivity.

The Projection for Inflation. The progress made in lowering the rate of inflation during the 1991-1992 period is likely to stick thereafter. CBO projects that CPI inflation will hold at a 3.9 percent rate during the 1993-1996 period, and that the growth of the GNP deflator will remain at a 3.4 percent rate. The rate of inflation in the CPI is slightly higher, and the growth of the GNP deflator slightly lower, than CBO projected last winter. This divergence largely reflects a reassessment of trends in the prices of consumer services and computers. On the one hand, growth of the CPI is boosted relative to that of the GNP deflator because it places a heavier weight on the price of consumer services, which are expected to continue to rise rapidly. On the other hand, the growth of the GNP deflator is depressed by the growing proportion of GNP devoted to computers. Since the price of computers continues to decline in CBO's projection, the growth of the GNP deflator is reduced relative to the CPI, which does not include computer prices.

The Projection for Interest Rates. CBO projects that real interest rates will decline over the 1993-1996 period. Short-term interest rates fall 0.4 percentage point, to 1.9 percent by 1996, and long-term rates drop one percentage point, to 3.4 percent. CBO bases its projection of real interest rates on the projected balance between the supply of and the demand for capital during the 1993-1996 period. As such, interest rates reflect the increased supply of saving (relative to the demand for saving) expected over this period. Sources of increased saving include a rebound in the personal saving rate, which has been depressed in recent years, and a decline in the budget deficit, which (excluding outlays for deposit insurance) is projected to fall to about 2 percent of GNP by 1996.

Balanced against these increases in available saving is the increased demand for saving as the U.S. economy recovers and expands, as well as the increased demand from abroad. CBO expects that the increased demand for capital emanating from German unification and European economic union, and, to a lesser extent, from reconstruction in the Middle East and the former Soviet bloc, will be a drain on the global supply of capital. According to CBO's analysis, this demand for capital probably has already increased world real interest rates.

TABLE I-5. GROWTH IN LABOR PRODUCTIVITY IN THE NONFARM BUSINESS SECTOR

| Period | Average Annual Growth Rate (Percent) |
|---|---|
| **Actual** | |
| 1950:4 - 1960:2 | 2.0 |
| 1960:2 - 1973:2 | 2.5 |
| 1973:2 - 1981:3 | 0.6 |
| 1981:3 - 1990:3 | 1.0 |
| **Forecast** | |
| 1990 - 1996 | 1.3 |

SOURCE: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

NOTE: The periods in the table begin and end at business cycle peaks, as designated by the National Bureau of Economic Research.

## CONCLUSION

While a recovery is apparently under way, it has only begun to reduce unemployment, lost output, budget problems at all levels of government, and other hardships that resulted from the recession. A variety of unusual problems in financial markets and elsewhere will limit the pace of recovery, and could even cause it to stall. Still, in common with most other forecasters, CBO projects moderate growth in real GNP and declines in both unemployment and inflation over the next year and a half. Revised projections for the 1993-1996 period show continued moderate improvements, though at rates below those that the Administration projects.

## CHAPTER II

# THE BUDGET OUTLOOK

The federal deficit will set a record in 1991 but will not, as CBO and the Administration predicted a few months ago, break the $300 billion mark. The improvement, relative to earlier projections, is both superficial and fleeting. CBO projects that the federal deficit under current policies will balloon to $362 billion in fiscal year 1992, which begins in October, before subsiding. In 1995 and 1996, it still tops $150 billion (see Table II-1).

Two transitory factors account for 1991's better-than-expected outlook: foreign contributions for Operation Desert Storm and deposit insurance. Foreign contributions for Desert Storm (which reduce the deficit) should reach nearly $50 billion in 1991 but will not recur. Deposit insurance, which has buffeted the spending totals since 1988, is now expected to total $77 billion in 1991. This marks a new record, but is down from earlier predictions as the pace of resolutions has slackened. Deposit insurance spending should peak at about $115 billion in 1992 before declining. By the middle of the decade, it acts to reduce the deficit as the government sells billions of dollars worth of assets acquired from failed institutions. The government's underlying fiscal condition is much clearer when these two factors are stripped away. As Table II-1 shows, the deficit excluding Desert Storm contributions and deposit insurance spending is on a steady, but slow, downward slide--from $250 billion (about 4½ percent of gross national product) in 1991 and 1992 to $200 billion (about 2½ percent of GNP) by 1996. Economic recovery and the spending restraint embodied in last year's budget summit agreement join to account for this shrinkage.

The budget summit agreement, as codified in the Budget Enforcement Act, is holding. Appropriation bills moving through the Congress are hewing to the dollar caps set in the act. Emergency legislation, specifically envisioned in the law, was enacted to pay for the costs of Operation Desert Storm; much of this spending will be recouped from foreign contributions. A handful of other urgent needs, totaling about $2 billion, also received the emergency designation. Still uncertain is the fate of a bill passed in early August that would extend unemployment insurance benefits for some recipients if the President declares an emergency. Policymakers have enacted no other significant entitlement or tax legislation this year (under the rules of the summit, such legislation in total must not raise the deficit).

A mix of economic and technical factors has worsened the deficit outlook since last fall, and the vision of a nearly balanced budget--which CBO held out in its post-summit reports--has faded even further into the future. The public and policymakers may become restless with the painfully slow decline in the deficit under the policies of the bud-

TABLE II-1. CBO DEFICIT PROJECTIONS
(By fiscal year, in billions of dollars)

| | Actual 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|---|
| Total Deficit Assuming Discretionary Caps | 220 | 279 | 362 | 278 | 234 | 157 | 156 |
| Deficit Excluding Deposit Insurance and Desert Storm Contributions | 162 | 250 | 248 | 220 | 202 | 189 | 200 |
| On-Budget Deficit (Excluding Social Security and Postal Service) | 277 | 331 | 425 | 348 | 318 | 252 | 262 |
| **Memoranda:** | | | | | | | |
| Deposit Insurance | 58 | 77 | 115 | 58 | 32 | -32 | -44 |
| Desert Storm Contributions | 0 | -48 | 0 | 0 | 0 | 0 | 0 |
| Off-Budget Surplus | | | | | | | |
| Social Security | 58 | 53 | 63 | 72 | 82 | 93 | 106 |
| Postal Service | -2 | -1 | a | -2 | 1 | 1 | a |
| Total | 57 | 52 | 63 | 70 | 83 | 95 | 106 |

SOURCE: Congressional Budget Office.

a. Less than $500 million.

get summit agreement. At the same time, achieving compliance with the current discretionary spending caps (as CBO explicitly assumes in its projections) may provoke bitter battles when--starting in 1994--defense, international, and domestic programs all vie for a single limited pot. A later section of this chapter previews possible paths for discretionary spending in 1994 and 1995 and concludes that the caps pinch tightly indeed.

The budget summit agreement moved away from fixed deficit targets in favor of other, more narrowly targeted sanctions to ensure fiscal responsibility in specific legislation. Deficit targets appear in the law but have little meaning; they are elastic, moving automatically with economic and technical changes through 1993 (and perhaps thereafter, at the option of the President). The targets, furthermore, refer to the on-budget deficit, which by law specifically excludes the Social Security trust funds and the Postal Service (see Table II-1). Social Security alone, however, accounts for about one-quarter of the government's taxes and one-fifth of its spending. These huge dollar flows, and the much smaller flows accounted for by the Postal Service, are an inextricable part of the government's finances. Thus, a measure of the deficit that ignores them has no economic meaning.

This chapter summarizes the budget outlook through 1996, focusing on changes since CBO last published its budget projections in March. It describes compliance to date with the requirements of last fall's budget summit agreement, and previews how compliance will become much harder with the fiscal year 1994 budget two years from now. The outlook for deposit insurance spending, which gets special treatment under the Budget Enforcement Act, is discussed. Concluding sections explain why CBO's current projections differ from those of the Office of Management and Budget (OMB), and cast the CBO estimates into the format of the national income and product accounts (NIPA) that economists commonly use.

## CHANGES IN THE BUDGET OUTLOOK SINCE MARCH

**CBO now projects much bigger deficits in all years, except 1991, than it did last winter. The gloomier outlook stems mostly from a few sources:**

revenues, deposit insurance, Medicaid and other benefit programs, and interest (see Table II-2). Nearly all the changes are caused by economic and technical factors and not by new legislation. Except to permit spending on Operation Desert Storm and a few smaller emergencies, little budget legislation has passed. Last year's Budget Enforcement Act deliberately immunized the budget process against economic and technical swings. Because the deficit's deterioration is not the result of lax policies, policymakers are not forced to seek additional billions of dollars in deficit reductions--a sharp change from the old regime of fixed deficit targets.

## The Revenue Outlook

Current revenue projections are well below last winter's. The gap amounts to $35 billion in 1991, shrinks slightly in 1992 and 1993, then widens to $46 billion by 1996. The total reduction in the revenue estimates is approximately 3 percent in 1991 and 1996, and somewhat less in the intervening years.

Nearly two-thirds of the revision comes from CBO's revised economic outlook. CBO has slightly reduced its expectations of real GNP growth, but has more significantly reduced its expectations of the growth in nominal GNP. This change dampens projected personal incomes, particularly wages and salaries, reducing projected income and payroll taxes. Corporate profits, though, are now expected to rebound more vigorously than in last winter's forecast, increasing projected corporate income taxes by smaller amounts.

Tax collections to date in 1991, especially personal income tax receipts, have been weaker than the income data would suggest. The April 15 tax deadline for final settlements on 1990 liabilities brought fewer dollars than expected into the Treasury. Income and payroll taxes withheld from paychecks were weaker than expected in the second quarter. In other words, taxable personal income appears to have grown more slowly than its NIPA counterpart this year. Therefore, a downward technical adjustment has been made in projected personal taxes to reconcile recent tax collections with the recent income ac-

TABLE II-2. CHANGES IN CBO BUDGET PROJECTIONS SINCE MARCH (By fiscal year, in billions of dollars)

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| March 1991 Estimate | 1,093 | 1,169 | 1,251 | 1,331 | 1,415 | 1,495 |
| Policy Changes | 0 | 0 | 0 | 0 | 0 | 0 |
| Economic Assumptions | -15 | -16 | -16 | -21 | -27 | -34 |
| Technical Reestimates | -20 | -12 | -11 | -11 | -11 | -12 |
| Total | -35 | -28 | -27 | -32 | -39 | -46 |
| Current Estimate | 1,058 | 1,141 | 1,223 | 1,299 | 1,377 | 1,449 |
| **Outlays** | | | | | | |
| March 1991 Estimate | 1,402 | 1,463 | 1,472 | 1,501 | 1,484 | 1,561 |
| Policy Changes | 3 | 16 | 4 | 3 | 3 | 2 |
| Economic Assumptions | | | | | | |
| Benefit programs | a | -3 | -2 | -1 | 2 | 4 |
| Net interest | -2 | -2 | 2 | 6 | 10 | 13 |
| Subtotal | -3 | -5 | a | 5 | 11 | 17 |
| Technical Reestimates | | | | | | |
| Deposit insurance | -26 | 18 | 11 | 7 | 15 | -1 |
| Desert Storm contributions | -33 | 0 | 0 | 0 | 0 | 0 |
| Medicaid | 1 | 3 | 4 | 6 | 7 | 10 |
| Other major benefits | 3 | 7 | 7 | 7 | 6 | 6 |
| Net interest | -1 | -1 | 3 | 7 | 9 | 10 |
| All other | -8 | 2 | a | -1 | -2 | -1 |
| Subtotal | -65 | 29 | 26 | 25 | 35 | 24 |
| Total | -64 | 40 | 29 | 33 | 49 | 44 |
| Current Estimate | 1,337 | 1,504 | 1,501 | 1,534 | 1,534 | 1,605 |
| **Deficit** | | | | | | |
| March 1991 Estimate | 309 | 294 | 221 | 169 | 69 | 66 |
| Policy Changes | 3 | 16 | 4 | 3 | 3 | 2 |
| Economic Assumptions | 13 | 11 | 16 | 26 | 39 | 51 |
| Technical Reestimates | -46 | 41 | 37 | 36 | 47 | 36 |
| Total | -30 | 68 | 57 | 65 | 88 | 90 |
| Current Estimate | 279 | 362 | 278 | 234 | 157 | 156 |

SOURCE: Congressional Budget Office.

NOTE: The March 1991 projections appeared in *An Analysis of the President's Budgetary Proposals for Fiscal Year 1992.*

a. Less than $500 million.

counts data. Smaller technical adjustments have been made in other tax sources. Together, these factors have reduced 1991 revenues by $20 billion, and are projected to reduce revenues in future years by $11 billion to $12 billion annually.

There is no evidence that weaker-than-expected receipts signal a failure to achieve the revenue increases contained in last year's Omnibus Budget Reconciliation Act (OBRA). Revenue growth has been weaker than projected last January because the recession that began in August dampened the growth in personal income more than expected and this, in turn, dampened growth in income and payroll taxes. Given the pattern of tax collections this year, it is clear that the slowdown in income growth began in the second half of 1990, before the first OBRA tax increases were in place. The increases in personal income tax and Medicare payroll tax receipts enacted in OBRA were relatively small, about $6 billion, or less than one-tenth of 1 percent of personal taxes this year. If the recession-related weakness in personal tax receipts this year (relative to the CBO January forecast) were allocated to the provisions enacted in OBRA according to their share of expected revenues this year, the provisions would be coming up short by less than $0.2 billion. As for excise taxes, there are no indications from collections data that the anticipated overall increases in excise taxes resulting from OBRA are not coming in on schedule. IRS reports from those remitting excise taxes lag well behind payments, so that collections data by specific tax are not yet available. The new luxury taxes have drawn attention recently because their revenue-generating ability has been questioned. There is no information on this front: so few dollars were expected from these taxes that a shortfall could not be detected at this time. In short, there is no evidence that OBRA's income, payroll, and excise tax increases will fail to reduce the deficit as expected as economic activity and incomes recover.

## The Spending Outlook

The only significant budgetary legislation enacted since March dealt with the costs of Operation Desert Storm and a handful of other appropriations (most of which were labeled emergencies and, hence, were allowed under the discretionary spending caps). The conflict in the Persian Gulf area reached its climax as CBO and OMB developed their budget projections last winter. Both OMB and CBO simply included placeholder estimates for the war's costs and for the associated foreign contributions. Both agencies assumed that the operation would cost $29 billion--with outlays of $23 billion in 1991, nearly $5 billion in 1992, and small amounts in later years. Foreign contributions were assumed to total $15 billion in 1991. With the war over, the Congress enacted a supplemental spending bill permitting $43 billion in spending for the bulk of the conflict's costs. In the meantime, the Administration had successfully lined up pledges for foreign cash contributions now estimated to bring in $48 billion. The changes to Desert Storm costs and contributions supplant the old, placeholder estimates. CBO now expects that a great deal of spending related to Desert Storm will spill over into 1992 and even beyond. More information about the costs of Operation Desert Storm is contained in Box II-1.

Other legislation pales beside the costs of Operation Desert Storm. The bulk is for aid to Israel in the wake of the conflict and for humanitarian assistance to the Iraqi Kurds, both deemed emergencies. The few nonemergency items were largely offset by savings elsewhere.

The new economic outlook leads to modest changes in benefit programs, largely because of lower cost-of-living adjustments in Social Security and other retirement and disability programs in the early years. Over time, net interest is more keenly affected by the new forecast. Part of the change stems from updated assumptions about interest rates, which present a mixed picture: CBO now assumes slightly lower short-term interest rates (such as 91-day Treasury bills) through 1994; rates for longer maturities (such as 10-year notes) are higher during the entire six-year horizon. As a consequence, interest costs are modestly lower through 1993 but larger by several billion dollars a year thereafter. The more powerful culprit boosting interest outlays is the higher deficits now projected by CBO in 1992 and beyond.

Deposit insurance, a highly volatile category of spending, supplies one of the biggest technical reestimates. Revisions to savings-and-

## BOX II-1
## COSTS OF OPERATION DESERT STORM

Operations Desert Shield and Desert Storm will have a big impact on the 1991 and 1992 deficits. The 1991 impact is dominated by the contributions of U.S. allies toward defraying the war's financial costs. In 1991, the allies are expected to make good on their pledges totaling $54 billion--$48 billion in monetary contributions and about $6 billion of in-kind contributions. The Defense Department has authority to spend most of the cash contributions, but will probably spend only $24 billion in 1991 and the remainder in later years. Consequently, the budget will show a war-related surplus of $24 billion in 1991, a war-related deficit of about $16 billion in 1992, and smaller deficits after 1992.

The Administration estimates the incremental costs of the war could total $61 billion, of which $54 billion would be covered through allied contributions. The $7 billion of war costs funded by the United States can be broken down roughly as follows: $3 billion to $4 billion in long-term costs such as veterans' benefits; $2 billion to fund Desert Shield costs incurred last August and September; and about $1 billion in costs absorbed within the defense budget in 1990 and 1991.

The details of the Administration's cost estimate are becoming clearer. The table shows net costs incurred through May 1991 as displayed in the Administration's *Mid-Session Review of the Budget* (July 15, 1991). The cost figures through May do not correspond directly to anticipated net obligations or actual outlays for that period or for 1991. Rather, some of the supplemental appropriations reimburse the Defense Department for costs it paid from funds originally provided for other purposes. Consequently, outlays from the supplemental appropriations lag behind the incurred costs that are shown in the table. The table also shows how the Administration's figure might eventually be allocated by function.

Weapons and other nonpersonnel costs command the largest single share of costs--$43 billion, or 70 percent. The costs of force operations in the Persian Gulf area may reach $19 billion; transporting those forces there and back again, and resupplying them, may cost another $9 billion; replacing damaged or worn-out weapons could also cost $9 billion; and fuel for all of these activities could be as high as $7 billion.

About a third of the $61 billion may be for personnel costs--short-term costs such as the difference between reserve pay and active pay for those called to active duty, or long-term costs such as veterans' benefits. The incremental costs of extra pay to active and reserve troops may total $7 billion, and other personnel support functions may reach $7 billion. The Administration estimates that long-term benefits such as veterans' education programs may cost an extra $3 billion to $4 billion over many years.

| | Costs Through May 1991 (Billions of dollars) | Possible Total Costs | |
|---|---|---|---|
| | | Billions of Dollars | Percent |
| Weapons, Equipment, and Support | | | |
| Force operations | 13 | 19 | 31 |
| Force movement and resupply | 6 | 9 | 14 |
| New weapons | 8 | 9 | 14 |
| Fuel | 4 | 7 | 11 |
| Subtotal | 32 | 43 | 70 |
| Personnel Costs | | | |
| Pay | 5 | 7 | 12 |
| Support | 5 | 7 | 11 |
| Long-term benefits | 0 | 4 | 6 |
| Subtotal | 10 | 18 | 30 |
| Other | a | a | 1 |
| Total | 42 | 61 | 100 |

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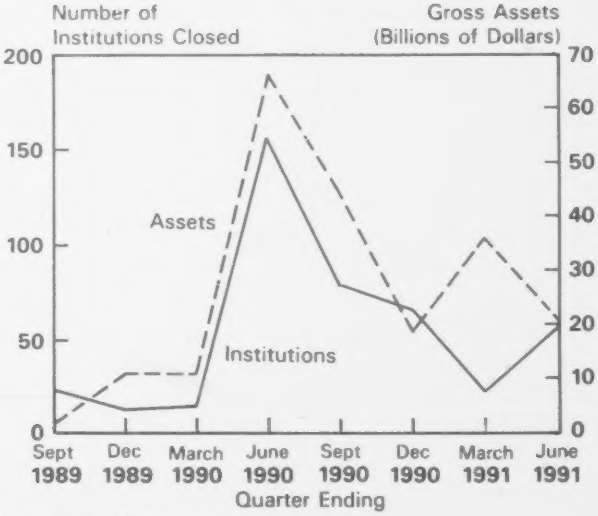
SOURCE: Congressional Budget Office using data from the Department of Defense.

a. Less than $500 million.

loan-related spending mainly reflect a slower timetable for the government's cleanup effort. Changes to commercial bank-related spending reflect CBO's judgment that more working capital (that is, funds needed temporarily until assets can be sold) will be expended. In neither case has CBO significantly downgraded its diagnosis of industry conditions.

Spending on savings and loan resolutions by the Resolution Trust Corporation (RTC) in 1991 is well below earlier projections. The RTC underwent a three-month hiatus before getting needed authority from the Congress in late March to continue resolving institutions, a delay that hampered its marketing of insolvent institutions. The effects showed clearly in its quarterly activity: whether measured by the number of institutions or their gross assets, a rough indicator of size, RTC's activity plunged in early 1991 (see Figure II-1). The new legislation kept RTC on a short leash, extending it only enough money to continue in high gear through September. But because deposit in-

## Figure II-1. Caseload of the Resolution Trust Corporation, by Quarter



SOURCES: Congressional Budget Office; Resolution Trust Corporation.

NOTE: The RTC began operations in August 1989.

surance is a mandatory commitment of the government, both CBO's and OMB's budget estimates assume that the deposit insurance agencies will be provided whatever future resources they need. CBO has not changed its estimate of the RTC's overall caseload or the eventual cost of resolving the savings and loan debacle. The downward revision to 1991 outlays is expected to be offset later, primarily in 1994 and 1995.

CBO has raised its estimate of spending by the Bank Insurance Fund, which insures deposits at commercial banks. CBO believes that the fund will incur heavy outlays in the next few years but is more sanguine than the Administration about the long-run outlook. The projections for deposit insurance are covered in greater detail in a special section below.

Other technical reestimates are varied. A big revision in 1991 stems from foreign contributions for the Persian Gulf conflict, now expected to total about $48 billion (versus last winter's placeholder estimate of $15 billion). CBO has put the entire $48 billion in 1991, though a few billions of dollars could in fact arrive after September 30. Several factors have recently joined to swell federal spending on Medicaid. Their exact contribution, and their implications for the future, are unknown (see Box II-2). CBO has raised its estimates of Medicaid spending, though not nearly as much as the Administration. Higher spending also appears likely in other major benefit programs, chiefly in food stamps and unemployment insurance (whose caseloads have grown faster than economic data alone suggest). Finally, as an upshot of higher borrowing, debt service costs will be greater.

## The Revised Baseline

As a consequence of these revisions, deficits are expected to remain quite high--both in dollars and in relation to the size of the economy--for the next several years. The updated baseline projections of revenues, outlays, deficits, and debt are presented in Table II-3. Revenues are depicted by major source, and spending is split into the categories that are used in the budget enforcement process.

In 1991, revenues are now expected to be only 18.9 percent as large as GNP, a recession-dampened figure. In 1992 through 1996, bolstered by economic recovery and by the full phase-in of the tax increases in last year's summit agreement, they represent a steady 19.2 percent to 19.4 percent of GNP. Outlays spike by a full percentage point in relation to GNP between 1991 and 1992 before declining. Their entire slide relative to GNP after 1992 can be explained by just two categories: discretionary spending, which is constrained by the summit's caps, and deposit insurance.

### BOX II-2
### THE SURGE IN MEDICAID SPENDING

Medicaid, a joint federal/state program to provide health care to some low-income persons, has been one of the fastest-growing entitlements in the budget. Federal outlays for Medicaid surged from $14 billion in 1980 to an estimated $52 billion in 1991; CBO estimates that they will reach $105 billion in 1996. The pressure on state and local budgets is similarly intense. States are required by federal law to provide a minimum benefit package (such as nursing home, hospital, and physician care), but may opt to cover added services (such as prescription drugs and dental care). Long-term care alone accounts for about 45 percent of Medicaid spending.

The Medicaid population consists mainly of beneficiaries under other government benefit programs (chiefly Aid to Families with Dependent Children and Supplemental Security Income). Some states permit applicants to qualify based on medical hardship, that is, few assets combined with very high medical expenses in relation to income. Even these applicants, though, must meet categorical criteria such as age and family status. Recent program expansions have focused on covering more low-income children and pregnant women, including those who are ineligible for cash benefit programs, and low-income Medicare beneficiaries. Although it plugs some gaps in the nation's medical coverage, Medicaid is far from a universal program for the poor and uninsured. Data are surprisingly hard to come by, but suggest that fewer than half of the noninstitutionalized poor receive Medicaid.

Medicaid is experiencing pressures from many of the same sources that have fueled growth in the government's Medicare program. These include high medical care inflation, which is well above the general rate of inflation, and greater intensity of services (such as the use of new drugs, technologies, and procedures). Recent legislation to expand eligibility, upgrade the standard of care in nursing homes, and raise "disproportionate share" payments

Debt held by the public, which measures the government's cumulative demands on credit markets, continues to climb as long as the government runs deficits. By 1996, debt is projected to reach almost $3.9 trillion (see Table II-3), more than one-third of it added over the 1991-1996 period; its size in relation to the nation's economy, though, levels off after 1994. The ratio of debt to GNP surpasses 50 percent during this period, a level not seen since the mid-1950s when the government still owed huge amounts of World War II-related debt.

(paid to hospitals that serve an unusually large share of Medicaid enrollees) cost money. And the recession has swollen enrollment.

Two special factors, both with unclear implications for future costs, may also be at work. First, recent court cases have forced states to hike payments for some services, as courts have held that existing rates were not reasonable and adequate. Second, many states (more than 30, at last count) are using so-called provider tax and refundable donation mechanisms to boost reimbursements and federal matching costs.

Under these tax-and-donation plans, states raise payments to providers (such as physicians and hospitals) while simultaneously recouping some of the payment from the provider in the form of a tax or donation. The state can then bill the federal government for matching funds on the basis of the higher, gross reimbursement. Providers are no worse off since they receive, at minimum, the same net reimbursement; meanwhile, the state has succeeded in getting the federal government to cover more of the total costs.

Under current law, states have wide latitude to adopt such policies. Practical obstacles probably keep states from exploiting these schemes to their fullest. State constitutional and political constraints often intrude. States may fear that the federal government will restrict such practices, and that they will be stuck with paying, out of their own pockets, the higher reimbursements that providers and patients have come to expect. Recognition of these practical obstacles has led CBO to mute the resulting upward revision to its Medicaid estimates. By 1996, CBO assumes that about 10 percent of Medicaid outlays will represent matching payments for tax-and-donation programs.

The OMB midsession review contains even higher projections of Medicaid spending. It notes the Administration's intention to promulgate regulations and seek legislation to constrain tax-and-donation programs. Efforts to restrict such approaches will collide head-on with the fiscal pressures facing state and local governments.

## TABLE II-3. CBO BASELINE BUDGET PROJECTIONS, ASSUMING COMPLIANCE WITH DISCRETIONARY SPENDING CAPS (By fiscal year)

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|
| **In Billions of Dollars** | | | | | | |
| Revenues | | | | | | |
| Individual income | 471 | 510 | 548 | 587 | 628 | 667 |
| Corporate income | 98 | 105 | 114 | 118 | 121 | 124 |
| Social insurance | 397 | 424 | 454 | 483 | 513 | 543 |
| Other | 93 | 101 | 108 | 112 | 115 | 115 |
| Total | 1,058 | 1,141 | 1,223 | 1,299 | 1,377 | 1,449 |
| Outlays | | | | | | |
| Defense discretionary | 322 | 314 | 295 | a | a | a |
| International discretionary | 20 | 20 | 21 | a | a | a |
| Domestic discretionary | 197 | 215 | 225 | a | a | a |
| Subtotal | 539 | 549 | 541 | 539 | 544 | 563 |
| Mandatory[b] | 574 | 632 | 674 | 717 | 766 | 820 |
| Deposit insurance | 77 | 115 | 58 | 32 | -32 | -44 |
| Net interest | 196 | 208 | 229 | 246 | 257 | 266 |
| Desert Storm contributions | -48 | 0 | 0 | 0 | 0 | 0 |
| Total | 1,337 | 1,504 | 1,501 | 1,534 | 1,534 | 1,605 |
| Deficit | 279 | 362 | 278 | 234 | 157 | 156 |
| Debt Held by the Public | 2,684 | 3,040 | 3,315 | 3,548 | 3,708 | 3,867 |
| **As a Percentage of GNP** | | | | | | |
| Revenues | | | | | | |
| Individual income | 8.4 | 8.6 | 8.7 | 8.8 | 8.8 | 8.8 |
| Corporate income | 1.8 | 1.8 | 1.8 | 1.8 | 1.7 | 1.6 |
| Social insurance | 7.1 | 7.1 | 7.2 | 7.2 | 7.2 | 7.2 |
| Other | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.5 |
| Total | 18.9 | 19.2 | 19.4 | 19.4 | 19.4 | 19.2 |
| Outlays | | | | | | |
| Defense discretionary | 5.8 | 5.3 | 4.7 | a | a | a |
| International discretionary | 0.3 | 0.3 | 0.3 | a | a | a |
| Domestic discretionary | 3.5 | 3.6 | 3.6 | a | a | a |
| Subtotal | 9.6 | 9.2 | 8.6 | 8.0 | 7.7 | 7.5 |
| Mandatory[b] | 10.3 | 10.6 | 10.7 | 10.7 | 10.8 | 10.9 |
| Deposit insurance | 1.4 | 1.9 | 0.9 | 0.5 | -0.5 | -0.6 |
| Net interest | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 |
| Desert Storm contributions | -0.9 | 0 | 0 | 0 | 0 | 0 |
| Total | 23.9 | 25.3 | 23.8 | 22.9 | 21.6 | 21.3 |
| Deficit | 5.0 | 6.1 | 4.4 | 3.5 | 2.2 | 2.1 |
| Debt Held by the Public | 48.0 | 51.2 | 52.5 | 53.0 | 52.2 | 51.3 |

SOURCE: Congressional Budget Office.

NOTE: The projections include Social Security and the Postal Service, which are off-budget.

[a] A single cap applies to the three categories of discretionary spending--defense, international, and domestic--in 1994 and 1995. The assumed cap for fiscal year 1996 is a CBO extrapolation.

[b] Includes entitlement and mandatory spending (other than deposit insurance) and offsetting receipts.

## COMPLIANCE WITH THE BUDGET ENFORCEMENT ACT

Last fall's budget summit agreement was followed promptly by the passage of legislation that cut almost $500 billion from the deficit over the 1991-1995 period. The same reconciliation bill that contained many of these savings also spelled out processes meant to ensure future fiscal discipline. Broadly speaking, two sets of rules govern the federal budget. *Pay-as-you-go* rules state that, taken as a whole, legislation affecting mandatory spending (such as most benefit programs) and revenues must not raise the deficit. *Discretionary spending caps* limit both budget authority (the authority to commit money) and outlays for defense, international, and domestic appropriations. Both forms of discipline can be waived when the President and the Congress agree that the nation faces an emergency.

Although the new budget process is still young, it has withstood some early tests. Policymakers have taken advantage of a few gray areas in the act (for example, by capitalizing on the minor differences between CBO and OMB estimates) and face constant temptation to deem desired proposals to be emergencies. Nevertheless, on several occasions they have refused to jettison the fiscal discipline called for in the budget summit. In the budget resolution passed in May, both Houses reaffirmed their intent to abide by the agreement's strictures. The Senate twice was required to vote on whether to suspend some key enforcement provisions, having been officially notified by CBO of slow economic growth. Opponents argued persuasively that relaxing many of the act's requirements in a shallow recession was premature. In both January and May, the Senate voted overwhelmingly against suspension. And the Senate also rejected a proposed Social Security tax cut that would have spilled additional red ink--permissible only because Social Security's off-budget status would have kept the consequences off the official scorecard.

Just before recessing in early August, the House and Senate agreed on legislation temporarily extending unemployment insurance benefits for some recipients in hard-hit areas. Unlike a wholesale suspension of the act's requirements in the face of slow economic growth, this legislation was narrowly targeted to address a specific problem that had arisen in the recession and incipient recovery. The legislation would cost approximately $5 billion through June 1992; because it requires the President to declare an emergency, and his intentions remain unclear, it is not reflected in CBO's projections.

## The Pay-As-You-Go Scorecard

The Budget Enforcement Act requires that legislation affecting mandatory programs (such as most of the big benefit programs) or revenues must not worsen the deficit. This requirement is not enforced bill by bill; rather, both CBO and OMB keep a running tally of such legislation and, at the end of a Congressional session, determine whether the sum of all such legislation signals a violation. If so, a targeted sequestration--automatic cutbacks applying only to selected mandatory programs--must occur.

If this sanction is ever invoked, practical problems could mount quickly. Many of the major benefit programs (including Social Security, federal employees' retirement, and most means-tested programs) are wholly exempt from the automatic cuts; others (including Medicare and Stafford student loans) are subject to limited cuts. These rules leave just a few remaining programs to bear the punishment for a serious violation. But nothing like this has happened yet. A few tiny pieces of legislation affecting mandatory programs have passed so far this year. Appendix A presents CBO's current estimates of the pay-as-you-go scorecard, as required by the Budget Enforcement Act.

## The Discretionary Spending Caps

The Budget Enforcement Act set fixed dollar caps through 1993 for the three broad categories of discretionary spending: defense, international, and domestic. In 1991 through 1993, policymakers are free to trade off dollars within each category--for example, by moving money among space programs, housing subsidies, and transportation, which are all parts of the domestic pie. But they cannot shift dollars from one category to another--for example, by cutting defense to pay for domestic programs. Although the act set fixed dollar caps, it spelled out a list of allowable adjustments: for emergencies, for conceptual changes (such as credit reform), for differences between actual and expected inflation, and a handful of other reasons. Up-to-date estimates of the discretionary caps, incorporating the various adjustments that have been made since the Budget Enforcement Act was passed, appear in Appendix A.

The 1991 Caps. OMB certified last November that the Congress had complied with the 1991 caps, after imposing a $389 million sequestration on international programs caused by a drafting error (since remedied) in the foreign aid bill. Since that time, almost all extra appropriations for 1991 have been for emergencies--for the costs of Operation Desert Storm and for associated foreign aid spending--and, hence, were automatically allowed under the caps. The few nonemergency purposes were largely offset by savings elsewhere. OMB did, however, slap a minisequestration totaling $2.4 million, or .0013 percent, on domestic programs in a dispute over provisions of the dire emergency supplemental. CBO and the General Accounting Office both argued that OMB's interpretation of the disputed provisions was wrong.

The 1992 Caps. Policymakers have now moved on to the 1992 budget. The 13 regular appropriation bills are wending their way through the Congress. The House has passed all 13 bills; the Senate has passed seven; three (the District of Columbia, Energy and Water, and Legislative Branch appropriations) have emerged from conference and await the President's signature. Appropriation bills are being guided by the budget resolution, which was passed in May and which reaffirmed Congressional intent to comply with the caps.

For a variety of reasons, actual discretionary outlays in 1992 are likely to top the official caps presented in Appendix A by several billion dollars. The first and simplest reason is that the caps shown in the appendix omit some adjustments that will permit extra spending but cannot officially be made until the end of the Congressional session. A second, and more complicated, reason is that outlays can be hard to estimate even when budget authority is fixed. Earlier this year, for example, CBO and OMB disagreed about whether the Administration's own budget request complied with the caps. CBO said that it complied with the budget authority caps (an easy judgment to make) but breached the outlay caps (a more difficult call). The Congress, aware that OMB was the official scorekeeper for compliance purposes, opted to use the more palatable Administration estimates. A likely spillover of billions of dollars in Desert Storm-related spending is another source of extra discretionary outlays in 1992. CBO believes that more Desert Storm spending (entirely from 1991 budget authority) will occur in 1992 than OMB assumed when it made the official Desert Storm adjustments to the caps.

CBO's baseline projections for 1992 strive to present a realistic estimate of outlays after incorporating these complications. Thus, 1992 budget authority for discretionary programs is set at $526 billion (the exact end-of-session cap currently assumed by OMB), and discretionary outlays are assumed to reach $549 billion (see Table II-3).

## HOW TIGHT ARE THE CAPS IN 1993-1995?

The Congress is now wrestling with appropriation bills for 1992, and decisions about appropriations for 1993 and beyond are still a year or more away. These decisions will also be guided by the caps set in the Budget Enforcement Act.

### The 1993 Caps

In the aggregate, the budget authority caps hold the 1993 defense budget at the same dollar level as in 1992, implying a real reduction of about 3½ percent. Nondefense programs are allowed to keep pace roughly with inflation. It is far too early to tell whether and how much spending might deviate from the official caps, because this will depend critically on funding decisions that have yet to be made for 1992.

Policymakers, though, may find the 1993 caps to be a bit tighter than they now anticipate, for two reasons. First, more Desert Storm-related defense outlays than originally thought will probably spill into 1993. Although appropriations for Desert Storm were an emergency and thus entailed a revision to the caps, this revision took place just once. OMB is not free to update estimates of emergency legislation for technical reasons (such as slower-than-expected spending). Thus, unless OMB turns a blind eye to this spending when gauging compliance with the 1993 caps, other defense outlays will be cramped. Second, the Budget Enforcement Act also calls for adjustments to the caps if actual inflation is higher or lower than was expected when the caps were first set. The logic, of course, is that unexpected changes in inflation ought not to squeeze outlays or, conversely, create room for extra real spending. Inflation in fiscal year 1991 is now expected to be roughly a full percentage point below the 5.1 percent assumed in the act. If so, a downward adjustment to the 1993 caps of roughly $3 billion in defense and more than $2 billion in domestic programs would be mandated in next January's budget.

### The Challenge in 1994 and 1995

In 1994 and 1995, the caps for specific categories--defense, international, and domestic--disappear. They are replaced by a single cap on all discretionary spending. And this cap is a stringent one, forcing both budget authority and outlays to fall slightly below 1993's dollar levels.

It is not yet apparent who will win and who will lose when defense and nondefense programs vie with each other for the limited resources allowed. But CBO has sketched two scenarios that illustrate the magnitude of reductions that might be required. As a starting point, both scenarios assume that the Congress appropriates the full amounts allowed by the caps in 1993. Preserving real resources for discretionary programs would then require boosting budget authority by roughly 4 percent in both 1994 and 1995. The severity of reductions can then be measured in comparison with this benchmark. The results are shown in Table II-4. The analysis focuses on budget authority, but the implications for outlays are similar in both dollar and percentage terms.

The first path (Scenario 1) accommodates the President's defense request. Although this path is more generous to the military than Scenario 2, it nevertheless involves paring growth in the defense budget below the rate of inflation. In real terms, defense resources

## TABLE II-4. MEETING THE DISCRETIONARY BUDGET AUTHORITY CAPS IN FISCAL YEARS 1994 AND 1995
(In billions of dollars)

| | | Scenario 1: Assume President's Defense Request | | Scenario 2: Assume Nondefense at Baseline | |
|---|---|---|---|---|---|
| Spending Category | 1993 Cap | 1994 | 1995 | 1994 | 1995 |
| **Defense** | | | | | |
| Assumed budget authority | 291.5 | 295.5 | 298.5 | 279.0 | 274.1 |
| Baseline | | 303.9 | 316.9 | 303.9 | 316.9 |
| Cuts required | | | | | |
| In dollars | | -8.4 | -18.4 | -24.9 | -42.8 |
| As a percentage | | -2.7 | -5.8 | -8.2 | -13.5 |
| **International** | | | | | |
| Assumed budget authority | 22.9 | 22.2 | 22.3 | 23.8 | 24.7 |
| Baseline | | 23.8 | 24.7 | 23.8 | 24.7 |
| Cuts required | | | | | |
| In dollars | | -1.6 | -2.4 | 0 | 0 |
| As a percentage | | -6.9 | -9.7 | 0 | 0 |
| **Domestic** | | | | | |
| Assumed budget authority | 207.4 | 200.4 | 204.3 | 215.3 | 226.2 |
| Baseline | | 215.3 | 226.2 | 215.3 | 226.2 |
| Cuts required | | | | | |
| In dollars | | -14.9 | -21.9 | 0 | 0 |
| As a percentage | | -6.9 | -9.7 | 0 | 0 |
| **Total Discretionary** | | | | | |
| Assumed budget authority | 521.7 | 518.1 | 525.0 | 518.1 | 525.0 |
| Baseline | | 543.0 | 567.8 | 543.0 | 567.8 |
| Cuts required | | | | | |
| In dollars | | -24.9 | -42.8 | -24.9 | -42.8 |
| As a percentage | | -4.6 | -7.5 | -4.6 | -7.5 |

SOURCE: Congressional Budget Office.

NOTES: The caps shown are those the budget resolution assumes.

The baseline projections for 1994 and 1995 are based on 1993 appropriations that are assumed to be equal to the 1993 caps.

The CBO reestimate of the President's defense request assumes no change in pay dates or in accounting for the accrued cost of military retirement.

would be shaved by nearly 3 percent in 1994 and by 6 percent in 1995 (see Table II-4). To achieve even this rate of defense growth, big savings must come out of domestic and international programs. If the two were treated identically, both would undergo reductions of about 7 percent in 1994 and an additional 3 percent in 1995, for cumulative real reductions of 10 percent.

Scenario 2, in contrast, maintains nondefense programs at the 1993 level (as adjusted for inflation). Thus, all cuts needed to meet the caps come from the defense budget--chopping it far below the baseline and well below even the President's request. In this hypothetical path, defense is cut by 8 percent in 1994 (compared with the amount necessary to preserve 1993 resources) and by another 6 percent in 1995, for a cumulative real reduction of almost 14 percent in 1995. In real terms, the defense budget is cut more than twice as deeply as the President proposes.

Both scenarios have unappealing features. Real defense spending has been on a downward path since 1986. Even the President's request (the more generous of the two scenarios, from the Pentagon's standpoint) implies that real defense spending in 1995 would be 22 percent below the 1990 rate. In the more draconian second path, real defense spending would sink to 28 percent below 1990's level. Very large cuts in military operations (including personnel) and investment would be inevitable. A CBO analysis, in fact, concludes that there would be no orderly way to achieve the defense outlay targets under Scenario 2 without starting before 1994--that is, appropriating less than the cap permits in 1993.[1]

Nondefense discretionary programs bore the brunt of budgetary cuts in the early 1980s, but have generally been boosted in recent years' appropriations. The caps in 1992 and 1993 permit these programs to keep pace with inflation. Shielding them from the 1994-1995 cuts, as in Scenario 2, leaves them 7 percent above 1990's level in real terms (or 3 percent, if renewals of existing contracts for subsidized housing are excluded from the comparison). Sharing the pain of cuts in

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[1] Testimony of Robert Hale, Assistant Director, National Security Division, CBO, before the Senate Committee on the Budget, July 16, 1991.

1994 and 1995, as in Scenario 1, would still leave domestic discretionary spending just 3 percent below 1990's level. Neither scenario contains much room for a host of pent-up domestic spending demands (for example, for infrastructure, environmental cleanup, and education and other investment in children) that clamor for dollars.

Of course, these two scenarios do not exhaust the possibilities. Policymakers have many potential ways to comply with the caps. And if emergencies occur, the caps can be adjusted. The two scenarios do suggest, however, that the next Congress, which convenes in January 1993, will face unpalatable choices for the 1994 budget. Many observers speculate that the budget summit agreement will be revisited at that time.

Buttressing this speculation are two further sources of pressure. First, the statutory limit on federal debt, hiked to $4,145 billion in the summit agreement, is likely to require another increase soon after the Congress convenes in January 1993. The debt subject to statutory limit includes special securities (currently almost $900 billion) issued to federal government trust funds and thus far exceeds debt held by the public. Though devoid of economic significance, debt subject to limit often acts as a political lightning rod. The need to raise the debt limit has, in the past, often spurred changes to budget policies and process. Major changes in budget process--including the original Balanced Budget and Emergency Deficit Control Act (more commonly known as Gramm-Rudman-Hollings) in 1985, its revision in 1987, and the Budget Enforcement Act in 1990--have all coincided with interruptions in the debt ceiling. A second pressure point stems from the Budget Enforcement Act itself. The deficit targets through fiscal year 1993 are elastic, automatically moving with economic and technical changes; but revisions to the 1994 and 1995 targets are largely at the option of the President. The bludgeon of a huge, across-the-board sequestration--reminiscent of the old Gramm-Rudman-Hollings act--can be wielded by the Administration once again beginning in fiscal year 1994 if it so chooses.

## THE OUTLOOK FOR DEPOSIT INSURANCE

The huge liabilities that are the cause of the current deposit insurance crisis built up in the 1980s even as actual spending for these activities hardly rippled the budgetary pond. With rare exceptions, net outlays for deposit insurance were negative (that is, premiums and other income more than offset spending) until 1986. Not until 1988 did net spending hit $10 billion. CBO's new projections assume that total deposit insurance spending will reach a whopping $115 billion in 1992 before subsiding. By 1995, net outlays are large but negative, as the government continues selling assets acquired earlier in the decade and the caseload of new institutions tapers off. Table II-5 details CBO's current projections for deposit insurance spending.

Deposit insurance is a mandatory obligation of the government; having promised to protect depositors, the government must honor its pledge. The absence of panics demonstrates that depositors view the promise as solid. (In contrast to depositors, owners of failed institutions routinely lose their entire investment.) Although policymakers have been reluctant to request or grant enough resources for the entire cleanup, limiting the allotted funds does nothing to reduce eventual spending. In fact, it can drive up costs if it slows the pace of resolutions and enables ailing institutions to stay in business. These costs of delay can be formidable. A recent CBO study concluded that forbearance--the policy of delaying resolution of institutions for an average of 38 months even after they were known to be insolvent--cost an extra $66 billion (in 1990 dollars) for 1,130 thrift institutions resolved in 1980 through 1991, roughly doubling the total cost of closing these institutions.[2]

The Budget Enforcement Act recognized that the government has made a binding commitment to depositors. Legislation granting more resources to the deposit insurance agencies is specifically exempt from the pay-as-you-go discipline so long as it merely honors the government's existing commitment. Implicitly, the act supports CBO's and OMB's practice of presenting budget estimates for deposit insurance on an unconstrained basis, disregarding the periodic need to go back to the Congress for more money.

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[2] Congressional Budget Office, "The Cost of Forbearance During the Thrift Crisis," Staff Memorandum (June 1991).

Deposit insurance outlays account for much of the deficit's recent growth and will fuel the deficit's decline in the mid-1990s. Economists

TABLE II-5. OUTLAYS FOR DEPOSIT INSURANCE IN THE BASELINE (By fiscal year, in billions of dollars)

| | Estimate | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
| | Savings-and-Loan-Related | | | | | | | |
| Resolution Trust Corporation | | | | | | | | |
| Insurance losses[a] | 1 | 35 | 37 | 47 | 32 | 31 | 8 | b |
| Working capital | | | | | | | | |
| Disbursements | 9 | 33 | 50 | 78 | 64 | 60 | 14 | 0 |
| Receipts | 0 | -3 | -24 | -42 | -58 | -65 | -61 | -45 |
| Interest costs | b | b | 4 | 7 | 10 | 11 | 11 | 8 |
| Payments from Federal Home Loan Banks | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Receipts from Resolution Funding Corporation (REFCORP) | 0 | -18 | -12 | 0 | 0 | 0 | 0 | 0 |
| Total Budget Outlays | 9 | 47 | 55 | 90 | 47 | 37 | -28 | -37 |
| Total Including REFCORP | 9 | 65 | 67 | 90 | 47 | 37 | -28 | -37 |
| Federal Savings and Loan Insurance Corporation (FSLIC) | 10 | c | c | c | c | c | c | c |
| FSLIC Resolution Fund | b | 5 | 9 | 7 | 6 | 1 | 1 | 1 |
| Savings Association Insurance Fund (SAIF) | b | b | b | -1 | b | -1 | 1 | 2 |

SOURCE: Congressional Budget Office.

NOTE: Budget outlays reflect the treatment of the Resolution Funding Corporation (REFCORP) and Financing Corporation (FICO), shell corporations created solely to borrow funds for savings and loan resolutions, as government-sponsored enterprises. This treatment permits their borrowing

(Continued)

**typically focus on the deficit excluding deposit insurance, recognizing that cash outlays misstate the size and timing of deposit insurance's economic effects. The liabilities underlying these outlays accumulated over many years, but today's heavy expenditures do not stimulate**

TABLE II-5. Continued

| | Estimate | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
| | **Bank-Related and Other** | | | | | | | |
| Bank Insurance Fund | | | | | | | | |
| Insurance losses | 4 | 4 | 9 | 12 | 7 | 5 | 5 | 4 |
| Working capital | 5 | 8 | 12 | 18 | 14 | 8 | 8 | 6 |
| Liquidations | -2 | -2 | -4 | -7 | -11 | -13 | -13 | -12 |
| Net interest | -1 | -1 | a | 1 | 2 | 2 | 1 | 1 |
| Other outlays (net) | -3 | -3 | -4 | -5 | -7 | -7 | -7 | -8 |
| Total | 3 | 6 | 13 | 19 | 5 | -5 | -6 | -9 |
| Other[d] | b | b | b | b | b | b | b | b |
| | **Total** | | | | | | | |
| Total Budget Outlays for Deposit Insurance | 22 | 58 | 77 | 115 | 58 | 32 | -32 | -44 |
| Total Including REFCORP and FICO | 26 | 76 | 89 | 115 | 58 | 32 | -32 | -44 |

NOTES: (Continued)

to reduce the deficit. CBO has long viewed this treatment as inappropriate. The estimates assume the provision of additional resources to the RTC and the Bank Insurance Fund beyond those available under current law.

a. Includes up to $500 million per year in administrative costs.

b. Less than $500 million.

c. Defunct.

d. Primarily National Credit Union Share Administration.

extra spending by their recipients. Resolving a failed institution (and eventually selling its property and other assets) transfers the ownership of existing assets and liabilities but does not spur new production. For this reason, the financial markets have treated the associated borrowing needs with relative equanimity.

## Savings-and-Loan-Related Spending

Several federal agencies are engaged in the savings and loan cleanup (see Table II-5). Most attention is focused on the Resolution Trust Corporation, created in 1989 to deal with failed or failing institutions that the now defunct Federal Savings and Loan Insurance Corporation (FSLIC) could not afford to tackle. When it was created two years ago, the RTC was expected to finish its task by late 1992, and to incur total losses of no more than $50 billion. CBO now believes that the RTC will pay total losses of about $155 billion (in 1990 dollars) for a caseload of about 1,500 institutions. This diagnosis is consistent with CBO's earlier estimates, although the timing of outlays and the need for working capital are more volatile. By June 1991, the RTC had closed more than 400 institutions, and nearly 200 more were in conservatorship (a preliminary stage along the way to resolution). CBO assumes that the RTC continues resolving institutions through calendar year 1994, more than two years longer than originally scheduled. RTC's extended lease on life is assumed to give the Savings Association Insurance Fund (SAIF), FSLIC's successor, a reasonably clean slate as it picks up the task of doing resolutions.

Other savings-and-loan-related agencies have distinct missions. The FSLIC Resolution Fund inherited the FSLIC's caseload (that is, institutions already closed before the RTC was created in 1989). And SAIF, under CBO's assumptions, begins doing any necessary resolutions in 1995, largely using Treasury funds to deal with future casualties in a much-shrunken industry.

### Bank-Related Spending

While the wreckage of the savings and loan industry continues to dominate government outlays for deposit insurance, attention has recently shifted to commercial banks. The Bank Insurance Fund (BIF) is expected to incur record outlays in 1991 and 1992 before industry conditions stabilize. Over the entire 1991-1996 period, BIF outlays are expected to total $16 billion. Behind this total are massive flows: $108 billion in losses and working capital requirements and $7 billion in interest, offset by $61 billion from liquidations and $38 billion in premiums and other income. CBO believes that although the problems of the banking industry will impose heavy short-term losses on the government, they will cause the fund to be only temporarily insolvent. If BIF is permitted to borrow from the Treasury, premiums and liquidation income should ultimately be sufficient to pay off the debt without a permanent loss to taxpayers. CBO's estimates assume that BIF can borrow as necessary, and that premiums are raised as permitted in last year's reconciliation bill--from today's level of 23 cents per hundred dollars of deposits to 27 cents in 1992 and 30 cents in 1993.

Passage of bank reform legislation that is moving through the Congress may have little immediate effect on the budget, but will greatly affect the shape of the commercial banking industry. Much of the debate centers on structural issues (such as interstate branching and expansion of bank powers) and regulatory issues (such as early intervention before an institution's capital is lost). Proponents hope that a stronger banking industry will be more profitable and pose less hazard to the deposit insurance system in the long run. In the short run, by hastening the inevitable shakeout in the industry, such restructuring could impose greater pressures on the insurance fund.

## COMPARISON OF CBO AND ADMINISTRATION ESTIMATES

On July 15, the Administration issued its midsession review of the budget. CBO's and OMB's estimates of the deficit are very similar in 1991 and 1992, but CBO is consistently more pessimistic thereafter. Disagreements stem chiefly from different estimates of revenues, deposit insurance outlays, Medicaid, and net interest (see Table II-6).

TABLE II-6. COMPARISON OF CBO AND OMB DEFICIT ESTIMATES (By fiscal year, in billions of dollars)

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|
| OMB Midsession Review Deficit | 282 | 348 | 246 | 132 | 74 | 55 |
| Revenue Differences[a] | | | | | | |
| Administration pay-as-you-go proposals[b] | c | 3 | 1 | -1 | -1 | -4 |
| Other | 11 | 2 | 9 | 36 | 51 | 72 |
| Total | 11 | 4 | 10 | 35 | 50 | 68 |
| Outlay Differences | | | | | | |
| Administration pay-as-you-go proposals[b] | c | 6 | 9 | 9 | 11 | 11 |
| Deposit insurance | | | | | | |
| Savings-and-loan-related[d] | -11 | -8 | 29 | 76 | 13 | -9 |
| Bank Insurance Fund | 4 | 4 | -20 | -19 | d | 3 |
| Subtotal | -6 | -3 | 9 | 57 | 13 | -7 |
| Medicaid | -2 | -4 | -6 | -10 | -13 | -14 |
| Net interest | c | 3 | 10 | 19 | 27 | 35 |
| Other | -6 | 8 | d | -8 | -5 | 7 |
| Total | -14 | 10 | 22 | 67 | 33 | 32 |
| CBO Deficit Estimate | 279 | 362 | 278 | 234 | 157 | 156 |

SOURCES: Congressional Budget Office; Office of Management and Budget.

a. Lower revenues are depicted with a positive sign because they increase the deficit.

b. Administration estimate.

c. Less than $500 million.

d. Resolution Trust Corporation, FSLIC Resolution Fund, and Savings Association Insurance Fund.

The widening gap between the two agencies' revenue projections stems largely from differing economic forecasts. OMB is more upbeat about prospects for long-term real economic growth. In the 1993-1996 period (when recovery from the current recession is complete), OMB foresees that the economy's real growth rate will taper off gradually from 3½ percent to 3 percent a year. On average, CBO assumes a rate of real economic growth during this period that is more than one-half of a percentage point lower than OMB assumes.

Pronounced differences appear in the agencies' estimates of deposit insurance spending. CBO is more pessimistic about the costs and duration of the savings and loan cleanup effort, peaking in a huge $76 billion disagreement in 1994. At the same time, CBO is somewhat more optimistic about the outlook for commercial banks, which BIF insures.

In the midsession review, OMB drastically revised its estimates of Medicaid spending upward. Although OMB has not confirmed its exact reasons, the major factor it cites is the proliferation of state tax-and-donation plans that, in effect, induce the federal government to finance a larger share of Medicaid costs. CBO is uncertain about the potential of these and other cost pressures but believes that OMB may be overstating their effects. Box II-2 summarized some of the reasons for the spiraling costs of the Medicaid program.

Finally, CBO projects higher interest costs than does the Administration. Higher interest rates and higher deficits both contribute to this gap in debt service costs, which culminate in a $35 billion estimating difference in 1996.

## THE FEDERAL SECTOR OF THE NATIONAL INCOME AND PRODUCT ACCOUNTS

The totals presented in this chapter depict categories and concepts familiar to policymakers and budget-watchers. Total revenues, outlays, and deficits reflect the flows into and out of government coffers and (with minor adjustments) dictate the amount the government must raise in credit markets. Many economists, though, use an alternative method for displaying the federal government's finances. This approach, used in the government's national income and product accounts, recasts the government's transactions in the categories that affect gross national product, income, and other macroeconomic aggregates. These accounts help to trace the relationship between the federal government and other sectors of the economy and facilitate international comparisons.

There are just a handful of major differences between the NIPA versions of federal receipts and expenditures and their budget counterparts. *Netting and grossing* adjustments move selected receipts (recorded as offsetting receipts, or negative outlays, in the budget) from the spending side to the receipts side. Chiefly affected are intrabudgetary receipts for retirement contributions on behalf of federal workers, voluntary premiums for Medicare coverage, and various fees. These receipts are recorded in the budget as negative outlays, because they do not result from the government's taxing power. NIPA users, who seek a more comprehensive measure of receipts from all sources, shift them from the expenditures to the receipts side. This shift, of course, does not affect the deficit. The exclusion of *lending and financial transactions*, in contrast, causes the NIPA deficit to diverge from its budget counterpart. The NIPA totals (unlike the budget) disregard transactions that involve the transfer of existing assets and liabilities, and that therefore do not contribute to current income and production. In recent years, huge outlays for deposit insurance have dominated this category. Other, relatively small factors driving a wedge between budget and NIPA accounting include timing adjustments and geographical differences (the exclusion of Puerto Rico, the Virgin Islands, and a few other areas from the national economic statistics).

Currently, deposit insurance spending is the single most dramatic factor driving the relationship between the two deficit measures (see Table II-7). The NIPA deficit falls well below the budget deficit through 1994 (as it has in the last few years, ever since deposit insurance outlays ballooned). The pendulum swings the other way beginning in 1995 as the government collects huge amounts from the sale of acquired assets.

TABLE II-7. RELATIONSHIP OF THE BUDGET TO THE FEDERAL SECTOR OF THE NATIONAL INCOME AND PRODUCT ACCOUNTS (By fiscal year, in billions of dollars)

| | Actual | Base | Projected | | | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
| **Receipts** | | | | | | | |
| Revenues (Budget Basis)[a] | 1,031 | 1,058 | 1,141 | 1,224 | 1,300 | 1,377 | 1,449 |
| Differences | | | | | | | |
| Netting and grossing | | | | | | | |
| Government contributions for employee retirement | 45 | 48 | 50 | 53 | 57 | 60 | 63 |
| Medicare premiums | 12 | 12 | 13 | 15 | 17 | 19 | 20 |
| Other | 8 | 9 | 9 | 9 | 10 | 10 | 10 |
| Geographic exclusions | -2 | -2 | -2 | -3 | -3 | -3 | -3 |
| Other | 2 | -1 | 3 | -3 | -4 | -3 | -1 |
| Total | 64 | 65 | 72 | 72 | 77 | 84 | 89 |
| Receipts (NIPA Basis) | 1,095 | 1,123 | 1,214 | 1,295 | 1,376 | 1,460 | 1,538 |
| **Expenditures** | | | | | | | |
| Outlays (Budget Basis)[a] | 1,252 | 1,337 | 1,504 | 1,501 | 1,534 | 1,534 | 1,605 |
| Differences | | | | | | | |
| Netting and grossing | | | | | | | |
| Government contributions for employee retirement | 45 | 48 | 50 | 53 | 57 | 60 | 63 |
| Medicare premiums | 12 | 12 | 13 | 15 | 17 | 19 | 20 |
| Other | 8 | 9 | 9 | 9 | 10 | 10 | 10 |
| Lending and financial transactions | | | | | | | |
| Deposit insurance | -57 | -76 | -112 | -53 | -26 | 37 | 44 |
| Other | -7 | -13 | -15 | -14 | -10 | -7 | -1 |
| Defense timing adjustment | 5 | 2 | 2 | 1 | -3 | b | 4 |
| Geographic exclusions | -6 | -7 | -8 | -8 | -9 | -9 | -9 |
| Other | 3 | 1 | 1 | 2 | -2 | 1 | 1 |
| Total | 2 | -24 | -61 | 4 | 32 | 110 | 131 |
| Expenditures (NIPA Basis) | 1,253 | 1,313 | 1,443 | 1,505 | 1,566 | 1,644 | 1,736 |
| **Deficits** | | | | | | | |
| Deficit (Budget Basis)[a] | 220 | 279 | 362 | 278 | 234 | 157 | 156 |
| Differences | | | | | | | |
| Lending and financial | -64 | -89 | -128 | -67 | -36 | 30 | 43 |
| Defense timing adjustment | 5 | 2 | 2 | 1 | -3 | b | 4 |
| Geographic exclusions | -4 | -5 | -5 | -6 | -6 | -6 | -7 |
| Other | 1 | 2 | -1 | 4 | 1 | 3 | 2 |
| Total | -62 | -89 | -133 | -67 | -44 | 27 | 42 |
| Deficit (NIPA Basis) | 158 | 190 | 229 | 211 | 190 | 184 | 197 |

SOURCE: Congressional Budget Office.

a. Includes Social Security and Postal Service.

b. Less than $500 million.

### TABLE II-8. PROJECTIONS OF BASELINE RECEIPTS AND EXPENDITURES MEASURED BY THE NATIONAL INCOME AND PRODUCT ACCOUNTS

(By fiscal year, in billions of dollars)

| | Actual | Base | Projected | |
|---|---|---|---|---|
| | 1990 | 1991 | 1992 | 1993 |
| **Receipts** | | | | |
| Personal Tax and Nontax Receipts | 483 | 486 | 524 | 563 |
| Corporate Profits Tax Accruals | 114 | 104 | 126 | 132 |
| Indirect Business Tax and Nontax Accruals | 59 | 69 | 72 | 76 |
| Contributions for Social Insurance | 440 | 464 | 492 | 524 |
| Total | 1,095 | 1,123 | 1,214 | 1,295 |
| **Expenditures** | | | | |
| Purchases of Goods and Services | | | | |
| Defense | 309 | 328 | 322 | 304 |
| Nondefense | 107 | 119 | 131 | 136 |
| Subtotal | 416 | 447 | 453 | 439 |
| Transfer Payments | 505 | 501 | 588 | 624 |
| Grants-in-Aid to State and Local Governments | 128 | 147 | 165 | 177 |
| Net Interest | 182 | 198 | 216 | 241 |
| Subsidies Less Current Surplus of Government Enterprises | 22 | 21 | 21 | 24 |
| Total | 1,253 | 1,313 | 1,443 | 1,506 |
| **Deficit** | | | | |
| Deficit | 158 | 190 | 229 | 211 |

SOURCE: Congressional Budget Office.

The NIPA federal sector generally portrays receipts according to their source and expenditures according to their purpose and destination. Table II-8 presents these categories. Because no one can anticipate exactly how policymakers will comply with the single discretionary spending cap beginning in 1994, the detailed NIPA projections extend only through 1993.

Of the NIPA expenditure categories, defense and nondefense purchases of goods and services enter directly into GNP. Other categories (grants, interest, subsidies, and transfers) enter into GNP when they are ultimately spent by their recipients. One category exhibits a very unusual pattern. Total transfers actually fall in 1991, as allied contributions to help pay for Operation Desert Storm appear in the national income and product accounts as (negative) foreign transfers.

# APPENDIXES

## APPENDIX A

# SEQUESTRATION UPDATE REPORT

The Budget Enforcement Act of 1990 amended the Balanced Budget and Emergency Deficit Control Act of 1985 to add new enforcement procedures for direct (mandatory) spending, receipts, and discretionary spending for fiscal years 1991 through 1995. The law requires CBO to issue a sequestration preview report five days before the President's budget submission and a sequestration update report on August 15. These reports must contain estimates of the following items:

- The discretionary spending limits, and any adjustments to them,
- The amount by which direct spending or receipt legislation, enacted after the Budget Enforcement Act, has increased or decreased the deficit, and
- The maximum deficit amount.

This appendix provides the required information.

## DISCRETIONARY SEQUESTRATION REPORT

CBO's estimates of the limits on discretionary spending in the three categories--defense, international, and domestic--for fiscal years 1991, 1992, and 1993 are shown in Table A-1. The table also gives CBO's estimates of the limits on total discretionary spending for fiscal years 1994 and 1995.

The Budget Enforcement Act states that certain adjustments must be made at specified times to the discretionary spending limits. In the final sequestration reports for fiscal year 1991, the Congressional Budget Office (CBO) and the Office of Management and Budget (OMB) adjusted the limits for increased Internal Revenue Service funding, debt forgiveness for Egypt and Poland, and emergency appropriations. In the sequestration preview reports for fiscal year 1992, CBO and OMB made adjustments for legislated changes in budgetary concepts and definitions and for changes in inflation. Since then, CBO and OMB have made further adjustments to reflect the enactment of additional emergency appropriations, primarily for Operations Desert Shield and Desert Storm.

Although both CBO and OMB periodically provide estimates of the discretionary spending limits, OMB's estimates are controlling, and CBO's estimates are only advisory. OMB last updated the discre-

TABLE A-1. CBO ESTIMATES OF DISCRETIONARY SPENDING LIMITS FOR FISCAL YEARS 1991-1995 (In millions of dollars)

| | Defense | International | Domestic | Total |
|---|---|---|---|---|
| 1991 | | | | |
| Budget authority | 332,918 | 21,245 | 182,935 | 537,098 |
| Outlays | 330,802 | 20,296 | 200,470 | 551,568 |
| 1992 | | | | |
| Budget authority | 291,361 | 20,917 | 198,526 | 510,804 |
| Outlays | 302,505 | 19,257 | 211,198 | 532,960 |
| 1993 | | | | |
| Budget authority | 291,480 | 21,643 | 205,933 | 519,056 |
| Outlays | 295,023 | 19,825 | 223,359 | 538,207 |
| 1994 | | | | |
| Budget authority | a | a | a | 518,098 |
| Outlays | a | a | a | 537,511 |
| 1995 | | | | |
| Budget authority | a | a | a | 524,980 |
| Outlays | a | a | a | 542,903 |

SOURCE: Congressional Budget Office.

a. For 1991, 1992, and 1993, each of three categories of discretionary spending--defense, international, and domestic--has a separate limit. A single limit applies to the three categories of discretionary spending in 1994 and 1995.

tionary spending limits in June, after the enactment of the supplemental appropriation for assistance to Iraqi refugees. Since then no legislation has been enacted that would alter the discretionary spending limits. Therefore the estimates shown in Table A-1 are the same as OMB's June estimates.

Since the enactment of the Budget Enforcement Act, adjustments to the discretionary spending limits have added $45 billion to budget authority in 1991 and $7 billion in 1992. Emergency appropriations for the costs of Operation Desert Storm account for virtually all of the 1991 increase. The 1992 increase stems almost entirely from changes in budgetary concepts and definitions, primarily changes in accounting for credit programs and for budget authority in certain trust funds.

Before its August recess the Congress cleared three of the 13 appropriation bills for the President's signature. The House has passed all the remaining bills, and the Senate has passed four. Because action on 1992 appropriations is still incomplete, it is too early to tell if appropriations will come within the legal limits or if a discretionary sequestration will be required.

## PAY-AS-YOU-GO SEQUESTRATION REPORT

If changes in direct spending programs or in governmental receipts increase the deficit in any fiscal year, a pay-as-you-go sequestration is triggered at the end of the Congressional session, and nonexempt mandatory programs are cut enough to eliminate the overage. If legislation increasing the deficit for that fiscal year is enacted in the next Congressional session, that increase is included in the following year's sequestration calculation. This retrospective adjustment is termed a look-back provision.

Table A-2 shows CBO's estimates of the budgetary effects of direct spending and receipt legislation enacted since passage of the Budget Enforcement Act. This legislation has increased the deficit by $6 million in 1991 and reduced the deficit by $44 million in 1992. Under the look-back provision, the net change in the deficit for 1992 is the sum of these two figures. As of August 15, therefore, there is a net deficit decrease for 1992 of $38 million, according to CBO estimates. Because OMB is also estimating a small net deficit decrease for 1992, no pay-as-you-go sequestration is currently anticipated.

On August 2, the Congress cleared and sent to the President the Emergency Unemployment Compensation Act. The bill states that none of its provisions will take effect unless the President designates the bill as an emergency requirement under the Balanced Budget Act. Therefore, any direct spending the bill creates would not be subject to

TABLE A-2. BUDGETARY EFFECT OF DIRECT SPENDING AND RECEIPT LEGISLATION ENACTED SINCE THE BUDGET ENFORCEMENT ACT
(By fiscal year, in millions of dollars)

| Legislation | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|---|---|---|---|---|
| Extending IRS Deadline for Desert Storm Troops (P.L. 102-2)[a] | 1 | 5 | 0 | 0 | 0 |
| Veterans Education and Employment Programs (P. L. 102-16) | 2 | 2 | 2 | 2 | 1 |
| Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act (P.L. 102-25) | 0 | 0 | 0 | 145 | 170 |
| Higher Education Technical Amendments (P.L. 102-26) | 3 | -56 | 5 | b | b |
| Veterans Housing Amendments (P.L. 102-54) | 0 | 5 | 3 | 1 | 0 |
| Total Change in the Deficit | 6 | -44 | 10 | 148 | 171 |

SOURCE: Congressional Budget Office.

NOTE: IRS = Internal Revenue Service; P.L. = Public Law.

a. This law reduced receipts in 1991 and 1992. Reductions in receipts are shown with a positive sign because they increase the deficit.

b. Less than $500,000.

the pay-as-you-go procedures. The figures in Table A-2 also exclude the effects of the Veterans' Benefits Programs Improvements Act, which has been cleared by the Congress but had not been signed by the President when this report went to press.

## DEFICIT SEQUESTRATION REPORT

The Budget Enforcement Act establishes deficit targets through 1995 and excludes from them the income and outgo of the Social Security trust funds. Through at least 1993, however, the targets are irrelevant. There are two reasons for this. First, OMB must adjust the deficit targets for revised economic and technical assumptions, the costs of emergency legislation, and other adjustments to the discretionary caps when submitting the President's budget for fiscal years 1992 and 1993. Second, the assumptions used by OMB in preparing the budget estimates must also be used by OMB for all subsequent calculations that year. Therefore, even if the budgetary outlook deteriorates after the President's budget is submitted, as long as the discretionary spending limits and pay-as-you-go requirement are met, the deficit targets will be said to have been reached.

The estimated maximum deficit amounts equal the on-budget deficits in the baseline, assuming that discretionary spending is held to the adjusted limits, and subtracting any net deficit increases or decreases resulting from legislation that affects direct spending or receipts. Because OMB has determined that the administrative expenses of the Social Security trust funds are subject to the discretionary spending limits, these expenses are also included in the maximum deficit amounts.

CBO's current estimates of the maximum deficit amounts, using the economic forecast and technical estimating assumptions described elsewhere in this volume, are shown in Table A-3. These figures exclude the special budget authority allowances and other adjustments that will not be made until the end of the Congressional session. They also implicitly assume that discretionary outlays for 1992 will be con-

TABLE A-3. CBO ESTIMATES OF MAXIMUM DEFICIT AMOUNTS
(By fiscal year, in billions of dollars)

| | 1992 | 1993 | 1994 | 1995 |
|---|---|---|---|---|
| CBO Estimate as of January 30, 1991 | 353 | 292 | 256 | 169 |
| Changes | 58 | 55 | 61 | 83 |
| CBO Estimate as of August 15, 1991 | 411 | 347 | 317 | 252 |

SOURCE: Congressional Budget Office.

sistent with OMB's January 1991 technical assumptions. As a result, the maximum deficit amounts differ slightly from the on-budget deficits shown in the rest of this report.

CBO's estimates of the maximum deficit amount have increased by $58 billion for 1992, $55 billion for 1993, and $83 billion for 1995, as Table A-3 shows. These increases are similar in size to the changes in the total deficit discussed in Chapter II and stem from the same factors. Because OMB is required by law to use the economic and technical assumptions contained in the budget, however, OMB will not be able to revise the maximum deficit amounts comprehensively until the 1993 budget is submitted. CBO's current revisions of the maximum deficit amount anticipate the changes that OMB will make early next year.

## APPENDIX B

# COMPARISON OF THE CBO AND ADMINISTRATION ECONOMIC FORECAST RECORDS

Overall, the Congressional Budget Office's economic forecasts have been slightly better than the Administration's for the 12 forecasts made between 1978 and 1989. Although both CBO and the Administration have tended to err toward optimism in their forecasts for a two-year horizon (the period that is most important in estimating the budget year deficit), the Administration's forecast errors have typically been larger than CBO's. Neither forecaster's average errors, however, are large enough to be significant in a statistical sense.

This appendix compares CBO forecasts with the corresponding forecasts of the Carter, Reagan, and Bush Administrations. Forecasts issued early in 1978 through early 1989 are included. The forecasts made in early 1990 cannot be included because 1991 is not yet complete.

The forecast comparison uses three important summary measures of forecast performance: the mean error, the mean absolute error, and the root mean square error.[1] The first measure, the simple average of all the errors, indicates the bias of the forecasts. In this measure, the underestimates and overestimates will offset each other, thereby showing whether the forecasts overestimate or underestimate on average. The second measure, the mean absolute error, indicates the average size of the overestimates and underestimates without regard to sign. The root mean square error also shows the size of the error without regard to sign, but it gives greater weight to larger errors. The mean absolute error and the root mean square error are alternative measures of forecast accuracy.

A less important measure of forecast performance used here compares the forecasts of CBO and the Administration by the number of times one or the other was the more accurate of the two. Such rankings could be misleading, however, because they do not measure how much better each forecast was on average. For example, if one forecaster does only marginally better than another on numerous occasions but much worse in a few years, the ranking measure would improperly indicate that the first forecaster was the better of the two. Therefore, the forecast rankings mentioned below should be interpreted with caution.

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[1] The mean absolute error is the average of all errors without regard to arithmetic sign. Root mean square error is calculated by first taking the square of all errors, then taking the square root of the average of the squared errors.

This appendix considers two time periods. The period of most interest for deficit forecasters is the two-year forecast horizon. Both the Administration and CBO publish forecasts in January or February for the budget year that begins in October of that year. An economic forecast that is accurate for not only the months leading up to the budget year but also the months of the budget year itself will provide the basis for an accurate forecast of the deficit. A second time period--four years--is used to examine the accuracy of longer-term projections of real growth in gross national product.

## THE TWO-YEAR FORECAST HORIZON

For the two-year forecast horizon, CBO has a better record for forecasting real GNP growth and the short-term interest rate that is adjusted for inflation. There was little difference, however, between the accuracy of the Administration and CBO forecasts of the inflation rate and the nominal short-term interest rate.

CBO's edge in forecasting real GNP growth gave it an advantage in forecasting the deficit, since real growth is the most important variable for minimizing errors in forecasting deficits. Forecasting inflation, nominal GNP growth, and nominal interest rates accurately is less important for deficit forecasting now than it was in the late 1970s and the early 1980s. Given current law and the level of the national debt, inflation increases both revenues and outlays by similar amounts. Revenues increase because taxes are levied on nominal incomes, profits, and transactions. Outlays increase because various entitlement programs are indexed to inflation, and because nominal interest rates increase, and therefore federal debt service increases when inflation rises.[2]

## Real GNP Growth

CBO had a slightly better record than the Administration for the two-year horizon in forecasting real GNP growth, the single most important variable for forecasting the deficit (see Table B-1). Although, on average, both forecasters tended to overestimate growth in real GNP, in each case, given the large errors made in individual years, the optimistic bias was small. The average errors were 0.1 percentage points for CBO and 0.5 percentage points for the Administration. The root mean square errors were 1.2 percentage points for CBO and 1.5 percentage points for the Administration. CBO's forecast was closer to the true value in eight of the twelve periods, the Administration's forecast was better in two, and the two forecasters had equal errors in two of the periods (see Table B-5).

Forecast errors tend to grow larger when the economy is more unstable. This tendency can be clearly seen in the forecasts of growth in real GNP by comparing the large errors for the 1981-1983 period, when the economy went through the most severe recession of the postwar period, with the smaller errors recorded for subsequent years. For this reason, the reported average forecast errors will increase once 1991 is over and errors for the 1990-1991 period can be included in the tables. Recent forecasts for this period already indicate how much errors have increased. For example, the differences between the forecasts of real GNP growth for 1990 and 1991 made in early 1990--before the recent recession--and those made most recently are 1.6 percentage points for CBO and 2.4 percentage points for the Administration.

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[2] Rules of thumb for estimating the effect on the deficit of changes in various macroeconomic variables are given in Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1992-1996* (January 1991), p. 76.

## TABLE B-1. COMPARISON OF CBO AND ADMINISTRATION TWO-YEAR FORECASTS OF REAL GNP GROWTH

(By calendar year)

| | Actual | CBO Forecast | CBO Error | Administration Forecast | Administration Error |
|---|---|---|---|---|---|
| 1978-1979 | 3.9 | 3.9 | 0.0 | 4.7 | 0.8 |
| 1979-1980 | 1.1 | 2.6 | 1.5 | 2.9 | 1.8 |
| 1980-1981 | 0.9 | 0.5 | -0.4 | 0.5 | -0.4 |
| 1981-1982 | -0.3 | 1.9 | 2.2 | 2.6 | 2.9 |
| 1982-1983 | 0.5 | 2.1 | 1.6 | 2.7 | 2.2 |
| 1983-1984 | 5.2 | 3.4 | -1.8 | 2.6 | -2.6 |
| 1984-1985 | 5.1 | 4.7 | -0.4 | 4.7 | -0.4 |
| 1985-1986 | 3.0 | 3.3 | 0.3 | 3.9 | 0.9 |
| 1986-1987 | 3.1 | 3.1 | 0.0 | 3.7 | 0.6 |
| 1987-1988 | 3.9 | 2.9 | -1.0 | 3.3 | -0.6 |
| 1988-1989 | 3.5 | 2.4 | -1.1 | 2.9 | -0.6 |
| 1989-1990 | 1.7 | 2.5 | 0.8 | 3.2 | 1.5 |
| Mean Error | n.a. | n.a. | 0.1 | n.a. | 0.5 |
| Mean Absolute Error | n.a. | n.a. | 0.9 | n.a. | 1.3 |
| Root Mean Square Error | n.a. | n.a. | 1.2 | n.a. | 1.5 |

SOURCES: Congressional Budget Office; Office of Management and Budget; Department of Commerce, Bureau of Economic Analysis.

NOTES: Actual values are the two-year growth rates for real gross national product (GNP) currently reported by the Bureau of Economic Analysis, not the first reported values. Forecast values are for the average annual growth in GNP over a two-year period. The forecasts were issued in January of the initial year of the period. Errors are forecast values minus actuals; thus, a positive error is an overestimate.

n.a. = not applicable.

## CPI Inflation

There is little difference in the records for forecasting the average annual growth of the consumer price index over the two-year horizon (see Table B-2). Both organizations underestimated future inflation in their 1978, 1979, and 1980 forecasts, and both tended to overestimate inflation in their forecasts during the 1981 through 1986 period. The average measures of bias and accuracy are virtually the same for CBO and the Administration. CBO was closer to the true value in seven of the twelve periods, and the Administration was closer in five.

## Nominal Short-Term Interest Rates

CBO's record is slightly better than the Administration's for nominal short-term interest rates over the two-year horizon (see Table B-3). By contrast with the forecasts made in 1978 through 1988, which resulted in similar errors for CBO and the Administration, the Administration's 1989 forecast underestimated rates by 1.9 percentage points as compared with CBO's underestimate of 0.3 percentage points. Overall, CBO had a smaller downward bias in forecasting interest rates than the Administration. CBO was closer to the true value in eight of the twelve periods, and the Administration was closer in four.

## Short-Term Interest Rates Adjusted for Inflation

CBO had a better forecasting record for short-term interest rates adjusted for inflation. The inflation-adjusted rate used in this discussion is the three-month Treasury bill rate less the growth rate of the consumer price index. The growth of the CPI is measured on the basis of the average annual rate from the fourth quarter of the preceding year to the fourth quarter of the second year of the period. Since CBO had forecast the price index for urban consumers (CPI-U), and the Administration had forecast the price index for urban wage earners and clerical workers (CPI-W), two actual interest rates, adjusted for inflation, are given in the table and used for analyzing forecast accuracy (see Table B-4).

## TABLE B-2. COMPARISON OF CBO AND ADMINISTRATION TWO-YEAR FORECASTS OF THE CPI INFLATION RATE (By calendar year)

| | Actual | | CBO | | Administration | |
|---|---|---|---|---|---|---|
| | CPI-U | CPI-W | Forecast | Error | Forecast | Error |
| 1978-1979 | 9.4 | 9.5 | 6.0 | -3.4 | 6.0 | -3.5 |
| 1979-1980 | 12.4 | 12.5 | 8.1 | -4.3 | 7.4 | -5.1 |
| 1980-1981 | 11.9 | 11.9 | 10.1 | -1.8 | 10.5 | -1.4 |
| 1981-1982 | 8.2 | 8.1 | 10.5 | 2.3 | 9.7 | 1.6 |
| 1982-1983 | 4.6 | 4.5 | 7.2 | 2.6 | 6.6 | 2.1 |
| 1983-1984 | 3.8 | 3.3 | 4.8 | 1.0 | 4.8 | 1.5 |
| 1984-1985 | 3.9 | 3.5 | 5.0 | 1.1 | 4.5 | 1.0 |
| 1985-1986 | 2.7 | 2.5 | 4.1 | 1.4 | 4.2 | 1.7 |
| 1986-1987 | 2.8 | 2.6 | 3.8 | 1.0 | 3.8 | 1.2 |
| 1987-1988 | 3.9 | 3.8 | 4.0 | 0.1 | 3.3 | -0.5 |
| 1988-1989 | 4.4 | 4.4 | 4.7 | 0.3 | 4.2 | -0.2 |
| 1989-1990 | 5.1 | 5.0 | 4.9 | -0.2 | 3.8 | -1.2 |
| Mean Error | n.a. | n.a. | n.a. | 0.0 | n.a. | -0.2 |
| Mean Absolute Error | n.a. | n.a. | n.a. | 1.6 | n.a. | 1.8 |
| Root Mean Square Error | n.a. | n.a. | n.a. | 2.1 | n.a. | 2.2 |

SOURCES: Congressional Budget Office; Office of Management and Budget; Department of Labor, Bureau of Labor Statistics.

NOTES: Values are for the average annual growth of the consumer price index (CPI) over the two-year period. CBO forecast the CPI-U (for all urban consumers). The Administration forecast the CPI-W (for urban wage earners and clerical workers). The forecasts were issued in January of the initial year of the period. Errors are forecast values minus actuals; thus, a positive error is an overestimate.

n.a. = not applicable.

TABLE B-3. COMPARISON OF CBO AND ADMINISTRATION TWO-YEAR FORECASTS OF NOMINAL SHORT-TERM INTEREST RATES (By calendar year)

| | | CBO | | Administration | |
|---|---|---|---|---|---|
| | Actual | Forecast | Error | Forecast | Error |
| 1978-1979 | 8.6 | 6.5 | -2.1 | 6.1 | -2.5 |
| 1979-1980 | 10.8 | 8.4 | -2.4 | 8.2 | -2.6 |
| 1980-1981 | 12.8 | 9.5 | -3.3 | 9.8 | -3.0 |
| 1981-1982 | 12.4 | 13.3 | 0.9 | 10.0 | -2.4 |
| 1982-1983 | 9.7 | 12.6 | 2.9 | 11.1 | 1.4 |
| 1983-1984 | 9.1 | 7.1 | -2.0 | 8.0 | -1.1 |
| 1984-1985 | 8.5 | 8.8 | 0.3 | 8.1 | -0.4 |
| 1985-1986 | 6.7 | 8.5 | 1.8 | 8.0 | 1.3 |
| 1986-1987 | 5.9 | 6.8 | 0.9 | 6.9 | 1.0 |
| 1987-1988 | 6.2 | 5.7 | -0.5 | 5.5 | -0.7 |
| 1988-1989 | 7.4 | 6.5 | -0.9 | 5.3 | -2.1 |
| 1989-1990 | 7.8 | 7.5 | -0.3 | 5.9 | -1.9 |
| Mean Error | n.a. | n.a. | -0.4 | n.a. | -1.1 |
| Mean Absolute Error | n.a. | n.a. | 1.5 | n.a. | 1.7 |
| Root Mean Square Error | n.a. | n.a. | 1.8 | n.a. | 1.9 |

SOURCES: Congressional Budget Office; Office of Management and Budget; Federal Reserve Board.

NOTES: Values are the average of the three-month Treasury bill rate for the two-year period. The forecasts were issued in January of the initial year of the period. Errors are forecast values minus actuals; thus, a positive error is an overestimate.

n.a. = not applicable.

## TABLE B-4. COMPARISON OF CBO AND ADMINISTRATION TWO-YEAR FORECASTS OF THE SHORT-TERM INTEREST RATE ADJUSTED FOR INFLATION (By calendar year)

| | Actual | | CBO | | Administration | |
|---|---|---|---|---|---|---|
| | Based on CPI-U | Based on CPI-W | Forecast | Error | Forecast | Error |
| 1978-1979 | -2.1 | -2.2 | 0.5 | 2.6 | 0.0 | 2.2 |
| 1979-1980 | -1.8 | -1.9 | 0.5 | 2.3 | 1.3 | 3.2 |
| 1980-1981 | 1.8 | 1.9 | 0.0 | -1.8 | 0.1 | -1.8 |
| 1981-1982 | 5.4 | 5.6 | 3.5 | -1.9 | 1.2 | -4.4 |
| 1982-1983 | 5.8 | 6.0 | 5.8 | 0.0 | 6.2 | 0.2 |
| 1983-1984 | 5.4 | 5.9 | 2.3 | -3.1 | 3.3 | -2.6 |
| 1984-1985 | 4.7 | 5.1 | 3.8 | -0.9 | 3.6 | -1.5 |
| 1985-1986 | 4.3 | 4.7 | 4.3 | 0.0 | 3.7 | -1.0 |
| 1986-1987 | 3.0 | 3.2 | 2.8 | -0.2 | 2.9 | -0.3 |
| 1987-1988 | 1.8 | 1.8 | 1.3 | -0.5 | 1.0 | -0.8 |
| 1988-1989 | 2.9 | 3.0 | 2.2 | -0.7 | 1.2 | -1.8 |
| 1989-1990 | 2.4 | 2.5 | 2.6 | 0.2 | 2.3 | -0.2 |
| Mean Error | n.a. | n.a. | n.a. | -0.3 | n.a. | -0.7 |
| Mean Absolute Error | n.a. | n.a. | n.a. | 1.2 | n.a. | 1.7 |
| Root Mean Square Error | n.a. | n.a. | n.a. | 1.6 | n.a. | 2.1 |

SOURCES: Congressional Budget Office; Office of Management and Budget; Federal Reserve Board; Department of Labor, Bureau of Labor Statistics.

NOTES: Values are for the three-month Treasury bill rate less the respective forecast for inflation as measured by the change in the consumer price index (CPI). CBO forecast the CPI-U (for all urban consumers). The Administration forecast the CPI-W (for urban wage earners and clerical workers). The change in the CPI for the two-year periods is measured as the average annual rate from the fourth quarter of the preceding year to the fourth quarter of the second year of the period. The forecasts were issued in January of the initial year of the period. Errors are forecast values minus actuals; thus, a positive error is an overestimate.

n.a. = not applicable.

TABLE B-5. RANKING OF CBO AND ADMINISTRATION TWO-YEAR FORECASTS, CALENDAR YEARS 1978-1989

| | Number of Times a Forecaster Had a Smaller Error | | |
|---|---|---|---|
| | CBO | Administration | Ties |
| Growth in Gross National Product | 8 | 2 | 2 |
| Inflation as Measured by the Consumer Price Index | 7 | 5 | 0 |
| Nominal Short-Term Interest Rates | 8 | 4 | 0 |
| Inflation-Adjusted Short-Term Rates | 8 | 2 | 2 |

SOURCE: Congressional Budget Office.

CBO's errors were smaller than the Administration's for all of the error statistics. Both CBO and the Administration had an optimistic bias; that is, they forecast lower interest rates, adjusted for inflation, than those that actually occurred on average, but the Administration's bias was greater. The Administration's mean absolute and root mean square errors were also larger, and CBO was closer to the actual value in eight of the twelve periods (see Table B-5).

Note that the optimistic biases throughout the 1980s are greater than those indicated by the average of the entire period. Short-term interest rates, adjusted for inflation, were higher in the 1980s than in previous decades. Most forecasters failed to anticipate this departure from historical norms.

## THE LONGER HORIZON

The Administration's errors for real GNP growth for the more distant future, measured here as four years ahead, were larger than CBO's. Although this does not directly affect the estimates of the budget year

## TABLE B-6. COMPARISON OF CBO AND ADMINISTRATION LONGER-TERM PROJECTIONS OF REAL GNP GROWTH (By calendar year)

| | | CBO | | Administration | |
|---|---|---|---|---|---|
| | Actual | Forecast | Error | Forecast | Error |
| 1978-1981 | 2.4 | 4.6 | 2.2 | 4.8 | 2.4 |
| 1979-1982 | 0.4 | 3.5 | 3.1 | 3.7 | 3.3 |
| 1980-1983 | 0.7 | 2.0 | 1.3 | 2.6 | 1.9 |
| 1981-1984 | 2.4 | 2.6 | 0.2 | 3.7 | 1.3 |
| 1982-1985 | 2.7 | 2.8 | 0.1 | 3.8 | 1.1 |
| 1983-1986 | 4.1 | 3.6 | -0.5 | 3.3 | -0.8 |
| 1984-1987 | 4.1 | 4.1 | 0.0 | 4.3 | 0.2 |
| 1985-1988 | 3.5 | 3.3 | -0.2 | 4.0 | 0.5 |
| 1986-1989 | 3.3 | 3.3 | 0.0 | 3.8 | 0.5 |
| 1987-1990 | 2.8 | 3.0 | 0.2 | 3.5 | 0.7 |
| Mean Error | n.a. | n.a. | 0.6 | n.a. | 1.1 |
| Mean Absolute Error | n.a. | n.a. | 0.8 | n.a. | 1.3 |
| Root Mean Square Error | n.a. | n.a. | 1.3 | n.a. | 1.6 |

SOURCES: Congressional Budget Office; Office of Management and Budget; Department of Commerce, Bureau of Economic Analysis.

NOTES: Actual values are the four-year growth rates for gross national product (GNP) currently reported by the Bureau of Economic Analysis, not the first reported values. Forecast values are for the real average annual growth in GNP over the four-year period. The forecasts were issued in January of the initial year of the period. Errors are forecast values minus actuals; thus, a positive error is an overestimate.

n.a. = not applicable.

deficit, accuracy in the longer term is obviously important for budget planning over several years. It should be noted, however, that neither the Administration nor CBO considers its projections to be its best guess about the year-to-year course of the economy. The Administration indicates that its projection is based on the adoption of the President's budget, and, in recent years, CBO has considered its projections an indication of the average future performance of the economy if major historical trends prevail. Neither forecaster attempts to anticipate cyclical fluctuations in the projection period.

In the few years that are available for comparison, the Administration's projections had an upward bias of 1.1 percentage points for the average annual rate of real GNP growth over four-year periods, and CBO had an upward bias of 0.6 percentage points (see Table B-6). These biases resulted in large part from the inability of the projections made in January of 1978, 1979, and 1980 to anticipate the recessions of 1980 and 1982. In subsequent years, the upward bias was much smaller for the Administration's projections, and there was virtually no bias in CBO's projections.

The size of the root mean square errors for the entire period for both CBO and the Administration is also largely the result of errors in projections made during the first three years. Moreover, CBO had a definite edge in the projections made in January 1981 and 1982, and a lesser edge in later years. CBO's projection of four-year real GNP growth was more accurate than the Administration's for every one of the ten periods compared here.

## THE USE OF STATISTICS IN FORECAST ACCURACY

For a number of reasons, the statistics on errors reported here may not be useful for estimating the accuracy of future forecasts. First, the sample of 12 forecasts for the two-year period is relatively small, and the difference between the accuracy of CBO's forecasts and those of the Administration is not statistically significant, given the small size of the sample. As a result, the historical record alone cannot decisively indicate which forecast will do better. Second, the procedures and purposes of each organization's forecasts have changed over the period and may change in the future. For example, in the late 1970s, CBO characterized its long-term projection as a goal for the economy, whereas now CBO considers it a projection that will prevail on average if the economy continues to reflect historical trends. Third, an institution's ability to forecast may change over time. Last, forecast errors increase when the economy is more volatile. When the economy undergoes a recession, both CBO's and the Administration's forecast errors tend to be larger than the averages of the 12 forecasts examined here.

## APPENDIX C

# AN ANALYSIS OF CONGRESSIONAL BUDGET ESTIMATES

The deficit in fiscal year 1990 exceeded the limit specified in the Congressional budget resolution for that year by $119 billion. It was the eleventh consecutive year that the deficit had exceeded the target set in the budget resolution. The excess was the largest since the Congress began formulating annual spending and revenue guidelines in 1976.

## THE BUDGET RESOLUTION FOR FISCAL YEAR 1990

The Congressional leadership and the Administration entered into budget negotiations soon after President Bush took office in January 1989. They announced an agreement in April. The Congress followed it with a budget resolution that specified totals for functional categories and assigned specific Congressional committees the responsibility for achieving deficit reduction goals. Using the Administration's economic and technical assumptions, the budget resolution set a limit of $99.7 billion on the deficit--just below the $100 billion target mandated by the Balanced Budget and Emergency Deficit Control Act. The deficit reported in the Final Monthly Treasury Statement for 1990, however, was $220 billion. Calculated on a basis comparable with that of the budget resolution, the 1990 deficit was $219 billion--$119 billion over the target set in the budget resolution. (The Treasury statement totals include the Postal Service, which the budget resolution assumed is off-budget. Adjustments to actual revenues, outlays, and deficits to make them comparable with the budget resolution are discussed later in this appendix.)

Table C-1 shows the differences between the budget resolution and the actual figures for revenues, outlays, and the deficit. Table C-2 divides these differences into variances resulting from policy, economic, and technical assumptions. Policy assumptions specify the laws and practices that the budget resolution expects to apply. For some programs, the assumptions specify those already in place. For others, they stipulate some proposed departures. Policy variances accounted for $20 billion of the difference between the 1990 deficit estimate and the actual deficit.

Several unanticipated pieces of legislation were responsible for most of the difference. First, the Congress repealed the year-old expansion of Medicare that provided catastrophic health insurance coverage. The Medicare Catastrophic Coverage Repeal Act eliminated the benefits, premiums, and taxes that would have occurred, resulting in a net increase in the 1990 deficit of $5 billion. Second, according to CBO's initial estimates, the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA), enacted in August 1989, added several billions of dollars in outlays during 1990. The FIRREA addressed the huge liabilities the failed and insolvent savings and loan institutions forced on the government. By so doing, it strengthened the government's system of insuring commercial banks. The Budget Enforcement Act of 1990 redefined the budget baseline to include an estimate

TABLE C-1. COMPARISON OF ACTUAL BUDGET TOTALS AND BUDGET RESOLUTION ESTIMATES FOR FISCAL YEAR 1990 (In billions of dollars)

| | Revenues | Outlays | Deficit |
|---|---|---|---|
| Actual Totals | 1,031.5 | 1,251.9 | 220.4 |
| Less: Postal Service | 0 | 1.6 | 1.6 |
| Actual Totals Adjusted for Comparability with the Budget Resolution | 1,031.5 | 1,250.2 | 218.8 |
| Budget Resolution | 1,065.5 | 1,165.2 | 99.7 |
| Difference[a] | -34.0 | 85.0 | 119.1 |

SOURCE: Congressional Budget Office; Department of the Treasury.

a. Actual outcome less assumed value.

of the full cost of meeting existing deposit insurance commitments. If this concept of the baseline applied in 1989, FIRREA would not have been shown as having an additional cost.

Final appropriation actions added $3 billion to the deficit, despite a sequestration that cut $2 billion from discretionary spending (as well as $1 billion from mandatory spending). The increase included an additional $2 billion for disaster relief following Hurricane Hugo and the earthquake that shook northern California in the fall of 1989. Finally, although the Congress passed an ambitious reconciliation bill in the fall of 1989, it fell short of the budget resolution's targets in several areas, chiefly asset sales and user fees.

TABLE C-2. SOURCES OF DIFFERENCES BETWEEN ACTUAL BUDGET TOTALS AND BUDGET RESOLUTION ESTIMATES FOR FISCAL YEAR 1990
(In billions of dollars)

| | Assumptions | | | |
|---|---|---|---|---|
| | Policy | Economic | Technical | Total |
| Revenues | -7.0 | -36.5 | 9.4 | -34.0 |
| Outlays | | | | |
| National defense | 0.3 | 0 | -0.2 | 0.1 |
| Nondefense discretionary spending | 3.1 | -0.1 | 0.5 | 3.6 |
| Entitlements and other Mandatory spending | 7.3 | 0.3 | 41.4 | 48.9 |
| Net interest | 0.9 | -0.7 | 2.6 | 2.8 |
| Offsetting receipts | 1.3 | -0.1 | 0.7 | 2.0 |
| Unallocated by source[a] | 0 | 13.6 | 14.0 | 27.6 |
| Total | 13.0 | 13.0 | 59.0 | 85.0 |
| Deficit | 20.0 | 49.5 | 49.6 | 119.1 |

SOURCE: Congressional Budget Office.

NOTE: Differences are actual outcomes less budget resolution assumptions.

[a] The budget resolution contained adjustments representing the aggregate amount of OMB versus CBO estimating differences. These adjustments were unallocated by source.

Overoptimistic assumptions about the economy caused the framers of the budget resolution to underestimate the 1990 deficit by $50 billion. The budget resolution incorporated economic assumptions developed by the new Administration in February 1989. Had the Congress used the forecast CBO developed at about the same time, it would have come about $10 billion closer to the mark. But even the CBO forecast was too optimistic.

Inaccurate technical assumptions also caused the sponsors of the budget resolution to underestimate the size of the actual deficit by $50 billion. Technical differences pushed actual revenues $9 billion above the level assumed in the budget resolution, while actual outlays exceeded the budget resolution target by $59 billion. Again, the Congress would have done marginally better if it had used CBO technical assumptions. On the outlay side, the actual cost of dealing with insolvent savings and loan institutions and banks was more than $50 billion higher than the estimate included in the budget resolution. This difference between the actual cost of deposit insurance and the estimate in the budget resolution is in addition to the cost attributed to FIRREA.

The difference between the budget resolution estimate and the actual deficit in 1990 was larger than in any previous year. As shown in Table C-3, the actual deficit has exceeded the deficit assumed in the budget resolution every year since 1980. The excess ranged from $4 billion in 1984 to $119 billion in 1990, and averaged $47 billion over the 11 years. Overoptimistic economic assumptions account for $20 billion, or 42 percent, of the average error, with the remainder almost equally divided between policy and technical assumptions. In 1990, the huge technical error ($50 billion) illustrates the difficulty of estimating the cost of the savings and loan crisis. Using CBO economic and technical assumptions, and excluding the cost of the savings and loan crisis, the difference between the estimated and the actual 1990 deficit is less than $50 billion.

## TABLE C-3. SOURCES OF DIFFERENCES BETWEEN ACTUAL BUDGET TOTALS AND FIRST BUDGET RESOLUTION ESTIMATES FOR FISCAL YEARS 1980-1990

(In billions of dollars)

| | Assumptions | | | |
|---|---|---|---|---|
| | Policy | Economic | Technical | Total |
| | **Revenues** | | | |
| 1980 | 6.2 | 8.4 | -3.5 | 11.1 |
| 1981 | -3.7 | 5.0 | -12.6 | -11.2 |
| 1982 | 13.0 | -51.9 | -1.1 | -40.0 |
| 1983 | -4.6 | -58.0 | -2.7 | -65.3 |
| 1984 | -13.7 | 4.5 | -3.9 | -13.1 |
| 1985 | -0.2 | -20.0 | 3.3 | -16.8 |
| 1986 | -1.5 | -23.0 | -2.1 | -26.6 |
| 1987 | 22.1 | -27.0 | 6.7 | 1.7 |
| 1988 | -10.9 | 3.6 | -16.5 | -23.8 |
| 1989 | 0.7 | 33.5 | -7.8 | 26.4 |
| 1990 | -7.0 | -36.5 | 9.4 | -34.0 |
| Average Difference | 0 | -14.7 | -2.8 | -17.4 |
| Average Absolute Difference | 7.6 | 24.7 | 6.3 | 24.6 |
| | **Outlays** | | | |
| 1980 | 19.6 | 12.4 | 15.6 | 47.6 |
| 1981 | 24.5 | 6.4 | 16.0 | 46.9 |
| 1982 | 1.2 | 24.1 | 7.7 | 32.9 |
| 1983 | 17.6 | 0.5 | 8.1 | 26.2 |
| 1984 | 1.5 | 7.1 | -18.0 | -9.4 |
| 1985 | 22.8 | -5.2 | -12.9 | 4.8 |
| 1986 | 14.2 | -12.1 | 20.1 | 22.2 |
| 1987 | 6.8 | -11.9 | 13.0 | 7.9 |
| 1988 | -2.0 | 11.7 | 12.0 | 21.7 |
| 1989 | 17.5 | 13.9 | 11.8 | 43.2 |
| 1990 | 13.0 | 13.0 | 59.0 | 85.0 |
| Average Difference | 12.4 | 5.5 | 12.0 | 29.9 |
| Average Absolute Difference | 12.8 | 10.8 | 17.7 | 31.6 |
| | **Deficit** | | | |
| 1980 | 13.4 | 4.0 | 19.1 | 36.6 |
| 1981 | 28.2 | 1.4 | 28.6 | 58.1 |
| 1982 | -11.8 | 76.0 | 8.8 | 73.0 |
| 1983 | 22.2 | 58.5 | 10.8 | 91.5 |
| 1984 | 15.2 | 2.7 | -14.1 | 3.7 |
| 1985 | 23.0 | 14.8 | -16.2 | 21.6 |
| 1986 | 15.7 | 10.9 | 22.2 | 48.8 |
| 1987 | -15.3 | 15.1 | 6.3 | 6.2 |
| 1988 | 8.9 | 8.1 | 28.5 | 45.5 |
| 1989 | 16.8 | -19.7 | 19.6 | 16.8 |
| 1990 | 20.0 | 49.5 | 49.6 | 119.1 |
| Average Difference | 12.4 | 20.1 | 14.8 | 47.3 |
| Average Absolute Difference | 17.3 | 23.7 | 20.4 | 47.3 |

SOURCE: Congressional Budget Office.

NOTE: Differences are actual outcomes less budget resolution assumptions.

## CONGRESSIONAL BUDGET RESOLUTIONS AND ACTUAL BUDGET TOTALS

The actual budget totals for 1976 through 1990 shown in the Administration's 1992 budget are not exactly comparable with the budget resolutions for those years. The budgetary treatment of several items has changed since the passage of the budget resolutions (see below). In addition, the Office of Management and Budget (OMB) has sometimes revised the data for outlays or revenues after the Final Monthly Treasury Statement is published. Table C-4 shows the adjusted actual totals and the totals for the budget resolution for 1976 through 1990. Both the conceptual changes and OMB's revisions are displayed in Table C-5.

Export-Import Bank. The Export-Import Bank was carried off-budget during 1976 and the transition quarter under the budget resolutions and budgets as submitted. Beginning in 1977, the activities of the bank have been recorded on-budget and included in the budget resolution totals, and the historical data have been revised to show a consistent data series. The bank must therefore be excluded from the 1976 and transition quarter totals shown in the budget document's historical tables in order to compare them with the budget resolutions for these periods.

Housing for the Elderly or Handicapped Fund. The Housing and Community Development Act of 1974 removed the operations of the Housing for the Elderly or Handicapped Fund from the budget. The 1978 Department of Housing and Urban Development Independent Agencies Appropriation Act, however, returned this revolving fund to on-budget status. The second budget resolution for 1978 recognized this change in budget status, as did the budget documents for 1979 and thereafter. The first resolution for 1978 and all prior resolutions, however, treated the fund as an off-budget entity. The operations of the fund must be excluded from the 1976, transition quarter, and 1977 budget totals shown in the recent budget documents in order to compare them with the budget resolutions for these periods.

Earned Income Tax Credit (EITC). Before fiscal year 1979, the budget resolutions treated the refundable portion of the EITC as an offset to receipts for all budget resolutions. Beginning with the 1979 resolutions and the 1980 budget, the refundable portion of the EITC is treated as a budget outlay. To derive actual budget totals that are comparable with the budget resolution before fiscal year 1979, the refundable portion of the EITC should be deducted from the historical figures for revenues and outlays shown in the Administration budget.

Exchange Stabilization Fund. Beginning with the 1980 budget, the administrative expenses and interest income of this revolving fund have been included in budget outlays. The budget resolutions through 1978, however, treated the fund as an off-budget entity. Thus, the fund's administrative expenses and interest income should be deducted from totals for outlays and the deficit shown in the budget document's historical tables for 1976 through 1978 in order to arrive at budget totals comparable with the budget resolution figures.

Gold Sales. In the 1980 budget, profits on gold sales were reclassified as a means of financing rather than an offsetting collection, and historical budget data were adjusted retroactively. To obtain budget totals that are comparable with the budget resolutions, gold sales should be added to the budget figures for 1976 through 1978 as an offsetting receipt.

Pension Benefit Guaranty Corporation (PBGC). Public Law 96-364 provided that the receipts and disbursement of the PBGC be included in the budget totals, beginning with 1981. This change has been reflected in budget resolutions from 1981 onward, and the Office of Management and Budget has adjusted the historical budget data accordingly. In order to compare the historical data with the budget resolution for the years before 1981, PBGC net outlays must be removed from the historical totals.

Medicare Premiums. Beginning with the 1983 budget, the Administration changed the classification of Medicare premiums from revenues to offsetting receipts to reflect the voluntary nature of the pay-

## TABLE C-4. CONGRESSIONAL BUDGET RESOLUTIONS AND ACTUAL BUDGET TOTALS

(By fiscal year, in billions of dollars)

| | Revenues | Outlays | Surplus or Deficit (-) |
|---|---|---|---|
| Fiscal Year 1976 | | | |
| First resolution | 298.2 | 367.0 | -68.8 |
| Second resolution | 300.8 | 374.9 | -74.1 |
| Actual | 299.2 | 364.8 | -65.6 |
| Fiscal Year 1977 | | | |
| First resolution | 362.5 | 413.3 | -50.8 |
| Second resolution | 362.5 | 413.1 | -50.6 |
| Third resolution | 347.7 | 417.5 | -69.8 |
| Third resolution amended | 356.6 | 409.2 | -52.6 |
| Actual | 356.9 | 401.9 | -45.0 |
| Fiscal Year 1978 | | | |
| First resolution | 396.3 | 461.0 | -64.6 |
| Second resolution | 397.0 | 458.3 | -61.3 |
| Actual | 401.1 | 449.9 | -48.8 |
| Fiscal Year 1979 | | | |
| First resolution | 447.9 | 498.8 | -50.9 |
| Second resolution | 448.7 | 487.5 | -38.8 |
| Revised second resolution | 461.0 | 494.5 | -33.4 |
| Actual | 465.9 | 493.7 | -27.7 |
| Fiscal Year 1980 | | | |
| First resolution | 509.0 | 532.0 | -23.0 |
| Second resolution | 517.8 | 547.6 | -29.8 |
| Revised second resolution | 525.7 | 572.7 | -47.0 |
| Actual | 520.1 | 579.6 | -59.6 |
| Fiscal Year 1981 | | | |
| First resolution | 613.8 | 613.6 | 0.2 |
| Second resolution | 605.0 | 632.4 | -27.4 |
| Revised second resolution | 603.3 | 661.4 | -58.0 |
| Actual | 602.6 | 660.5 | -57.9 |
| Fiscal Year 1982 | | | |
| First resolution | 657.8 | 695.4 | -37.6 |
| Revised second resolution | 628.4 | 734.1 | -105.7 |
| Actual | 617.8 | 728.4 | -110.6 |

(Continued)

SOURCE: Congressional Budget Office.

TABLE C-4. Continued

| | Revenues | Outlays | Surplus or Deficit (-) |
|---|---|---|---|
| Fiscal Year 1983 | | | |
| First resolution | 665.9 | 769.8 | -103.9 |
| Revised second resolution[a] | 604.3 | 807.4 | -203.1 |
| Actual | 600.6 | 796.0 | -195.4 |
| Fiscal Year 1984 | | | |
| First resolution[b] | 679.6 | 851.2 | -171.6 |
| Revised second resolution | 672.9 | 845.6 | -172.7 |
| Actual | 666.5 | 841.8 | -175.4 |
| Fiscal Year 1985 | | | |
| First resolution[c] | 750.9 | 932.0 | -181.2 |
| Revised second resolution[c] | 736.5 | 935.9 | -199.4 |
| Revised second resolution[d] | 736.5 | 946.3 | -209.8 |
| Actual[c] | 734.1 | 936.8 | -202.8 |
| Actual[d] | 734.1 | 946.3 | -212.3 |
| Fiscal Year 1986 | | | |
| First resolution | 795.7 | 967.6 | -171.9 |
| Actual | 769.1 | 989.8 | -220.7 |
| Fiscal Year 1987 | | | |
| First resolution | 852.4 | 995.0 | -142.6 |
| Actual | 854.1 | 1,002.1 | -148.0 |
| Fiscal Year 1988 | | | |
| First resolution | 932.8 | 1,040.8 | -108.0 |
| Actual | 909.0 | 1,062.5 | -153.6 |
| Fiscal Year 1989 | | | |
| First resolution | 964.4 | 1,099.7 | -135.3 |
| Actual | 990.7 | 1,144.1 | -153.4 |
| Fiscal Year 1990 | | | |
| First resolution | 1,065.5 | 1,165.2 | -99.7 |
| Actual | 1,031.5 | 1,250.2 | -218.8 |

[a] Outlays exclude amounts reserved pursuant to section 2 of budget resolution.

[b] Adjusted for enactment of reserve fund programs.

[c] On-budget only.

[d] On- and off-budget combined.

## TABLE C-5. ADJUSTMENTS TO BUDGET TOTALS FOR COMPARISONS WITH BUDGET RESOLUTIONS

(By fiscal year, in millions of dollars)

| | Receipts | Outlays | Deficit |
|---|---|---|---|
| **Fiscal Year 1976** | | | |
| 1992 Budget Document | 298,060 | 371,779 | 73,719 |
| Conceptual Changes | | | |
| Export-Import Bank | 0 | -856 | -856 |
| Housing for the Elderly or Handicapped Fund | 0 | 15 | 15 |
| Earned income tax credit | -808 | -808 | 0 |
| Exchange Stabilization Fund | 0 | 74 | 74 |
| Gold sales | 0 | -63 | -63 |
| Pension Benefit Guaranty Corporation | 0 | 22 | 22 |
| Medicare | 1,945 | 1,945 | 0 |
| Previously off-budget | 0 | -7,307 | -7,307 |
| Adjusted Totals for Comparisons with Budget Resolutions | 299,197 | 364,802 | 65,605 |
| **Transition Quarter** | | | |
| 1992 Budget Document | 81,232 | 95,973 | 14,741 |
| Conceptual Changes | | | |
| Export-Import Bank | 0 | -273 | -273 |
| Housing for the Elderly or Handicapped Fund | 0 | 3 | 3 |
| Earned income tax credit | -86 | -86 | 0 |
| Exchange Stabilization Fund | 0 | 15 | 15 |
| Gold sales | 0 | -1 | -1 |
| Pension Benefit Guaranty Corporation | 0 | a | a |
| Medicare | 541 | 541 | 0 |
| Previously off-budget | 0 | -1,785 | -1,785 |
| Adjusted Totals for Comparisons with Budget Resolutions | 81,687 | 94,387 | 12,700 |
| **Fiscal Year 1977** | | | |
| 1992 Budget Document | 355,559 | 409,203 | 53,644 |
| Conceptual Changes | | | |
| Housing for the Elderly or Handicapped Fund | 0 | -4 | -4 |
| Earned income tax credit | -901 | -901 | 0 |
| Exchange Stabilization Fund | 0 | 77 | 77 |
| Gold sales | 0 | a | a |
| Pension Benefit Guaranty Corporation | 0 | 16 | 16 |
| Medicare | 2,203 | 2,203 | 0 |
| Previously off-budget | 0 | -8,700 | -8,700 |
| Technical changes | 0 | 3 | 3 |
| Adjusted Totals for Comparisons with Budget Resolutions | 356,861 | 401,897 | 45,036 |

(Continued)

TABLE C-5. Continued

| | Receipts | Outlays | Deficit |
|---|---|---|---|
| **Fiscal Year 1978** | | | |
| 1992 Budget Document | 399,561 | 458,729 | 59,168 |
| Conceptual Changes | | | |
| Earned income tax credit | -881 | -881 | 0 |
| Exchange Stabilization Fund | 0 | 101 | 101 |
| Gold sales | 0 | -180 | -180 |
| Pension Benefit Guaranty Corporation | 0 | 32 | 32 |
| Medicare | 2,443 | 2,443 | 0 |
| Previously off-budget | 0 | -10,359 | -10,359 |
| Revisions to Data | -6 | -6 | 0 |
| Adjusted Totals for Comparisons with Budget Resolutions | 401,117 | 449,877 | 48,761 |
| **Fiscal Year 1979** | | | |
| 1992 Budget Document | 463,302 | 503,464 | 40,162 |
| Conceptual Changes | | | |
| Pension Benefit Guaranty Corporation | 0 | 39 | 39 |
| Medicare | 2,653 | 2,653 | 0 |
| Previously off-budget | 0 | -12,467 | -12,467 |
| Revisions to Data | -15 | -15 | 0 |
| Adjusted Totals for Comparisons with Budget Resolutions | 465,940 | 493,674 | 27,733 |
| **Fiscal Year 1980** | | | |
| 1992 Budget Document | 517,112 | 590,920 | 73,808 |
| Conceptual Changes | | | |
| Pension Benefit Guaranty Corporation | 0 | 27 | 27 |
| Medicare | 2,944 | 2,944 | 0 |
| Previously off-budget | 0 | -14,245 | -14,245 |
| Adjusted Totals for Comparisons with Budget Resolutions | 520,056 | 579,646 | 59,590 |
| **Fiscal Year 1981** | | | |
| 1992 Budget Document | 599,272 | 678,209 | 78,936 |
| Conceptual Changes | | | |
| Medicare | 3,340 | 3,340 | 0 |
| Previously off-budget | 0 | -21,005 | -21,005 |
| Adjusted Totals for Comparisons with Budget Resolutions | 602,612 | 660,544 | 57,932 |

(Continued)

TABLE C-5. Continued

| | Receipts | Outlays | Deficit |
|---|---|---|---|
| **Fiscal Year 1982** | | | |
| 1992 Budget Document | 617,766 | 745,706 | 127,940 |
| Conceptual Changes | | | |
| Previously off-budget | 0 | -17,331 | -17,331 |
| Adjusted Totals for Comparisons with Budget Resolutions | 617,766 | 728,375 | 110,609 |
| **Fiscal Year 1983** | | | |
| 1992 Budget Document | 600,562 | 808,327 | 207,764 |
| Conceptual Changes | | | |
| Previously off-budget | 0 | -12,357 | -12,357 |
| Adjusted Totals for Comparisons with Budget Resolutions | 600,562 | 795,970 | 195,407 |
| **Fiscal Year 1984** | | | |
| 1992 Budget Document | 666,457 | 851,781 | 185,324 |
| Conceptual Changes | | | |
| Previously off-budget | 0 | -9,966 | -9,966 |
| Adjusted Totals for Comparisons with Budget Resolutions | 666,457 | 841,815 | 175,358 |
| **Fiscal Year 1985** | | | |
| 1992 Budget Document | 734,057 | 946,316 | 212,260 |
| Conceptual Changes | | | |
| Previously off-budget | 0 | -9,118 | -9,118 |
| Revisions to Data | | | |
| Federal Home Loan Bank Board | 0 | -200 | -200 |
| Interest on the public debt | 0 | -145 | -145 |
| Crime victims fund | -61 | -61 | 0 |
| Other | 0 | 17 | 17 |
| Adjusted Totals for Comparisons with Budget Resolutions | 733,996 | 936,809 | 202,813 |
| **Fiscal Year 1986** | | | |
| 1992 Budget Document | 769,091 | 990,258 | 221,167 |
| Revisions to Data | 0 | -469 | -469 |
| Adjusted Totals for Comparisons with Budget Resolutions | 769,091 | 989,789 | 220,698 |

(Continued)

TABLE C-5. Continued

| | Receipts | Outlays | Deficit |
|---|---|---|---|
| **Fiscal Year 1987** | | | |
| 1992 Budget Document | 854,143 | 1,003,830 | 149,687 |
| Conceptual Changes | | | |
| Thrift fund | 0 | -736 | -736 |
| Revisions to Data | | | |
| Federal Home Loan Bank Board | 0 | -920 | -920 |
| Housing and Urban Development | 0 | -19 | -19 |
| Small Business Administration | 0 | -7 | -7 |
| Adjusted Totals for Comparisons with Budget Resolutions | 854,143 | 1,002,147 | 148,005 |
| **Fiscal Year 1988** | | | |
| 1992 Budget Document | 908,954 | 1,064,051 | 155,097 |
| Conceptual Changes | | | |
| Thrift fund | 0 | -1,537 | -1,537 |
| Revisions to Data | 0 | -7 | -7 |
| Adjusted Totals for Comparisons with Budget Resolutions | 908,954 | 1,062,507 | 153,553 |
| **Fiscal Year 1989** | | | |
| 1992 Budget Document | 990,691 | 1,144,069 | 153,378 |
| Revisions to Data | | | |
| Resolution Trust Corporation | 0 | -64 | -64 |
| FDIC Bank Insurance Fund | 0 | -63 | -63 |
| FSLIC Resolution Fund | 0 | -1,365 | -1,365 |
| National Archives and Records Administration | 0 | 55 | 55 |
| Timber receipts | 98 | 0 | -98 |
| Other | 0 | 237 | 237 |
| Adjusted Totals for Comparisons with Budget Resolutions | 990,789 | 1,142,869 | 152,080 |
| **Fiscal Year 1990** | | | |
| 1992 Budget Document | 1,031,308 | 1,251,703 | 220,396 |
| Conceptual Changes | | | |
| Postal Service | 0 | -1,626 | -1,626 |
| Revisions to Data | 154 | 147 | -8 |
| Adjusted Totals for Comparisons with Budget Resolutions | 1,031,462 | 1,250,224 | 218,762 |

SOURCE: Congressional Budget Office; Office of Management and Budget.

a. Less than $500,000.

ments. The reclassification was made retroactive to 1967, the year the collections were started. The following receipts were affected: Supplementary Medical Insurance premiums collected for the aged and the disabled, and related refunds; and Hospital Insurance premiums for uninsured individuals not otherwise eligible. The revised second budget resolution for 1982 and subsequent resolutions reflect this change. Historical totals for 1981 and prior years must be adjusted in order to compare them with the budget resolutions for those years.

Previously Off-Budget Items. The Federal Financing Bank, Postal Service, Rural Electrification and Telephone Revolving Fund, Rural Telephone Bank, United States Railway Association, and the Synthetic Fuels Corporation (which had no outlays) were off-budget in each budget resolution from 1976 through 1985. The Strategic Petroleum Reserve was off-budget from 1982 through 1985. The Balanced Budget and Emergency Deficit Control Act of 1985 moved all these items back on-budget. Because the historical data shown in the budget have been revised to show a consistent series, the items that were off-budget from 1976 through 1985 must be removed to compare the historical data with the budget resolutions for those years.

Federal Employees Thrift Fund. The Federal Employees' Retirement System Act of 1986 established a thrift plan to collect voluntary contributions from workers and matching and other contributions from their agencies. The budget resolutions for 1987 and 1988 included the receipts and expenditures of the fund. Because the government's role in the thrift fund is purely fiduciary, the thrift fund was reclassified in the 1989 budget (January 1988). The shift increased net outlays. The outlays of the fund must be added to the outlays reported in the budget document to be comparable with the 1987 and 1988 budget resolutions.

Postal Service. The Omnibus Budget Reconciliation Act of 1989 moved the Postal Service back off-budget; therefore, the 1990 budget resolution excludes Postal Service outlays. The actual outlays reported in the 1992 budget include the Postal Service in the totals, but present it off-budget (the same treatment as Social Security). The Postal Service must therefore be removed from the 1990 outlays reported in the 1992 budget to compare them with the 1990 budget resolution.

# APPENDIX D

# MAJOR CONTRIBUTORS TO THE REVENUE AND SPENDING PROJECTIONS

The following analysts prepared the revenue and spending projections in this report:

## Revenue Projections

| | |
|---|---|
| Mark Booth | Corporate income taxes, Federal Reserve System earnings |
| Maureen Griffin | Social insurance contributions, excise taxes, estate and gift taxes |
| Katherine Johnson | Excise taxes, NIPA receipts |
| Richard Kasten | Individual income taxes |
| Linda Radey | Excise taxes |
| Frank Sammartino | Individual income taxes |
| John Stell | Customs duties, miscellaneous receipts |

## Spending Projections

### *Defense and International Affairs*

| | |
|---|---|
| Eugene Bryton | Defense |
| Kent Christensen | International affairs |
| Raymond Hall | Defense |
| Barbara Hollinshead | Defense |
| William Myers | Defense |
| Mary Helen Petrus | Defense |
| Amy Plapp | Defense |
| Lisa Siegel | Defense |
| Joseph Whitehill | International affairs |

## Spending Projections (continued)

### *Human Resources*

| | |
|---|---|
| Sandra Clark | Child nutrition, veterans' compensation and pensions |
| Paul Cullinan | Social Security |
| Cathy Ellman | Civil Service Retirement, Railroad Retirement |
| Alan Fairbank | Hospital Insurance |
| Karen Graham | Public Health Service |
| Scott Harrison | Medicare |
| Holly Harvey | Supplementary Medical Insurance |
| Jean Hearne | Medicaid |
| Lori Housman | Medicare |
| Julia Isaacs | Food stamps, foster care, child care |
| Deborah Kalcevic | Education |
| Cory Oltman | Unemployment insurance, training programs, veterans' education |
| Pat Purcell | Supplemental Security Income, Medicaid |
| Kathleen Shepherd | Veterans' benefits |
| Connie Takata | Public Health Service |
| John Tapogna | Aid to Families with Dependent Children, child support enforcement |
| Karen Watkins | Social service programs, Head Start |

### *Natural and Physical Resources*

| | |
|---|---|
| Philip Bartholomew | Deposit insurance |
| Kim Cawley | Energy, pollution control and abatement |
| Patricia Conroy | Community and regional development, general government |
| Peter Fontaine | Energy |
| Mark Grabowicz | Science and space, justice |
| Theresa Gullo | Water resources, conservation, and land management |

Spending Projections (continued)

*Natural and Physical Resources* (continued)

| | |
|---|---|
| James Hearn | General government, Agricultural Credit Insurance Fund, Outer Continental Shelf receipts |
| David Hull | Agriculture |
| Thomas Lutton | Deposit insurance |
| Mary Maginniss | Deposit insurance |
| Eileen Manfredi | Agriculture |
| Marjorie Miller | Transportation, Federal Housing Administration |
| Andrew Morton | Agriculture |
| Deborah Reis | Recreation, water transportation |
| Mitchell Rosenfeld | Air transportation, justice, Postal Service |
| Brent Shipp | Housing and mortgage credit |
| John Webb | Commerce, disaster relief |

*Other*

| | |
|---|---|
| Janet Airis | Appropriation bills |
| Edward Blau | Appropriation bills |
| David Elkes | National income and product accounts, other interest |
| Betty Embrey | Appropriation bills |
| Kenneth Farris | Computer support |
| Danila Girerd | Credit budget |
| Glen Goodnow | Authorization bills |
| Alice Grant | Appropriation bills |
| Leslie Griffin | Net interest on the public debt |
| Vernon Hammett | Computer support |
| Sandra Hoffman | Computer support |
| Jeffrey Holland | National income and product accounts |
| Richard Krop | Civilian agency pay, historical data |
| Fritz Maier | Computer support |

Spending Projections (continued)

*Other* (continued)

| | |
|---|---|
| Rodney Rasmussen | Net interest on the public debt |
| Kathy Ruffing | Treasury borrowing, interest, and debt |
| Robert Sempsey | Appropriation bills |
| Jeff Swersey | Computer support |
| Rick Williams | Computer support |

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